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CHRISTIANITY IN JAPAN.\*

THE Portuguese, as is well known, first brought an European prow into the Indian seas. In 1497, Vasco da Gama doubled the stormy Cape and landed at Calicut on the Malabar coast. The same improvements in ship-building and skill in navigation which enabled the Portuguese

to reach, helped them to rule over, those distant seas. Their clumsy *caravels*, armed with a few rude pieces of artillery, destroyed the frail barks of the timid navigators of the Indian Ocean with almost as much ease as the English and the Dutch steamers nowadays run down the piratical *prahus* of the Sunda Islanders. The Portuguese were the tyrants of the seas and the terror of the Mecca pilgrims. They seized upon a number of maritime stations, among others Ormuz, Diu, Malacca, and several of the Moluccas, whence they could command the trade of the East. They twice attempted to take Aden, but without success. Goa was their capital; from it they ruled over most of the towns on the Malabar coast. But the petty princes who then shared the south of the Indian peninsula did not tamely submit to the sway of the Portuguese, whose cruelty and treachery they soon learned to detest. An incessant series of petty wars, although generally turning out to the advantage of Portugal, was still too heavy a drain on

\*ART. X.—1. *Nippon o Dai Itsu Ran, ou Anngles des Empereurs du Japon.* Traduites par Isaac Titsingh, avec un Aperçu de l'Histoire mythologique du Japon par M. J. Klaproth. Paris, 1834.

2. *Nippon: Archiv zur Beschreibung von Japan und dessen Neben- und Schutzländern.* Von Ph. Fr. von Siebold. Elberfeld, 1851.

3. *Bibliographie japonaise, ou Catalogue des Ouvrages Relatifs au Japon qui ont été publiés depuis le XV<sup>e</sup>. Siècle jusqu'à nos Jours.* Par M. Léon Pagès. Paris, 1859.

4. *The Missionary Life and Labors of Francis Xavier, taken from his own Correspondence, with a Sketch of the General Results of Roman Catholic Missions among the Heathen.* By Henry Venn, B.D., Prebendary of St. Paul's. London, 1862.

5. *Japan: being a Sketch of the History, Government, and Officers of the Empire.* By Walter Dickson. Edinburgh, 1869.

a country whose population was scarcely sufficient for the vast enterprises it had undertaken in India, Africa, and America. The rivalry of the Spaniards alarmed them, and they were getting more and more embroiled in hostilities with the nations of the northern coast of Africa. The Portuguese were, therefore, anxious that their dominions in India should be placed on a more secure and peaceable tenure, which might save a moiety of the large garrisons necessary to hold so many scattered posts along a permanently hostile coast. "After many deliberations at the Council of Portugal to find some measures which might in future conciliate the Indians, it was determined to try the assistance of religion in consideration of the fruit they had gained from it in the kingdom of Congo." \* This was very much to the taste of the king, John III., and his brother, Cardinal Henry, who favored the new order of Loyola and introduced the Inquisition into Portugal (1533).

An application was made to the Pope for two Jesuit missionaries to go out to India : Francis Xavier and Simon Rodriguez were sent. Rodriguez was induced by the king to remain in Portugal, where he founded the Jesuit college of Coimbra, and as confessor to the court rendered important service to the mission : but Francis Xavier set sail for the Indies in the same ship with the viceroy, Don Martin Alphonse de Sousa. Xavier was a Spanish gentleman, whom Ignatius Loyola had gained over to his new order at Paris, where he was delivering lectures on the philosophy of Aristotle. When he left Lisbon, he was thirty-six years of age, seven of which he had spent in the order of Loyola, whose system, maxims, and policy he had thoroughly learned. The squadron that bore the Jesuit missionary, with two assistants, reached Goa on the 6th May, 1542, after a voyage of thirteen months.

Little had been done as yet to spread Christianity amongst the Indians. The Portuguese conquerors, according to the accounts of their own historians, lived after the most dissolute fashion, surrounded by their concubines and slaves. Justice was sold in the tribunals, and the most hideous

crimes were only punished when the criminals had not money enough whereabouts to corrupt their judges. Even the bigotry which characterizes the inhabitants of the Spanish peninsula seemed for the time to slumber. Francis Xavier began by preaching a purification of manners amongst the Portuguese ; and after converting a number of the slaves and Pagan inhabitants of Goa, he set out for the southern coasts of India. Here the Franciscans had been before him. Twenty thousand of the pearl-fishers had submitted to the rite of baptism on the promise that they would be protected against the inroads of the Mahometans ; but few of them understood the nature of the ceremony which they had undergone. Xavier never dreams of denying the share which the temporal power of the Portuguese bore in the triumphant success of his mission.

"It sometimes happens," he writes,\* "that I baptize a whole town in one day. This is in a great measure to be attributed to the Governor of India, both because he is a singular friend and favorer of our Society, and because he spares neither expense nor labor to promote the propagation of the faith. By his assistance we have on this coast thirty Christian towns."

A little after Xavier despatches a messenger to Portugal to complain of the slackness of the Portuguese officials ; and

\* The Latin edition of "Xavier's Letters" generally used is that printed at Mayence, a reprint of that of Rome, 1596. There are several French translations. In an able and not entirely undeserved criticism of Mr. Venn's "Life and Labors of St. Francis Xavier," in the "Dublin Review," July, 1864, the reviewer denies that Francis Xavier used the assistance of the secular power of the Portuguese to help his conversions. There is no space here to quote from authorities. Let the reader who wishes to find proof for himself compare pp. 38-42 of the article in the "Dublin Review" with the original letter of Xavier there cited, and with Lucena, "Vida do Padre S. Francisco de Xavier," tomo i. livro ii. cap. xxii. ; and with "La Vie de Saint-François Xavier," par D. Bouhours, Paris, 1783, liv. iii. pp. 133-6 ; and "L'Histoire des Choses plus mémoirables en Indes orientales," &c., par Jarric, Bourdeaux, 1608, liv. ii. chap. ii.

In the "Epistole Indice," pp. 261-288, and in the work of Jarric (see liv. ii. chap. iii. and iv., and also liv. v.), there are accounts written by the Jesuits themselves of the violent and reckless manner in which the inhabitants of the islands round about Goa as well as those of the mainland of Salsette were forced to become Christians by Xavier's immediate successors at the College of the Holy Faith.

\* Osorius "Histoire de Portugal, contenant les Gestes mémorables des Portugallois dans les Indes," Paris, 1588, liv. xx.

the king in reply sends out a new viceroy and grants Xavier the most ample inquisitorial powers. Idolatry was suppressed in the Portuguese possessions; and both threats and promises were used to gain the natives to Christianity. Certainly these were not the only means employed by Xavier in his missionary enterprise. Neither could he without the Portuguese, nor the Portuguese without him, have worked out the extraordinary results which have been the boast of Catholicism ever since. Nothing could be more fitted to strike the mind of the Indian than the character, appearance, and manner of life of the apostle. In person he was tall and rather spare, but well proportioned, with brown hair, fair complexion, and blue eyes. The expression of his face was lively and cheerful; his address affable and winning. He made the same garment do for frock and mantle, and lived on a morsel of bread. He rarely slept more than four hours a day, and his rest was often broken by extatic visions and pious exclamations. He went about on foot under the burning sun of India; and his whole time was employed in preaching, instructing, and directing his subordinates. His missionary labors on the coast of India occupied three years, and extended from Goa to Meliapur on the opposite coast of the peninsula. Leaving his converts to his assistants and catechists, Xavier then set out for Malacca, from which place he sailed amongst the Moluccas and the adjacent islands, returning to India two years afterwards.

It must be borne in mind that the Apostle of the Indies was both the leader and director of a widely spread missionary movement, conducted by a rapidly increasing staff, not only of Jesuits,\* but also of priests and missionaries of other orders, as well as of native preachers and catechists. Xavier reserved for himself the arduous task of travelling to regions as yet unvisited by any preachers of Christianity; and his bold and impatient imagination was carried away by the idea of bearing the Cross to the countries of the farthest East. The islands of Japan, already known to Europe through the

travels of Marco Polo, had been reached by the Portuguese only eight years before, namely, in 1541, and Xavier, while at Malacca, had conversed with navigators and traders who had visited that remote coast. A Japanese, named Angero (Hansiro), pursued for homicide, had fled to Malacca in a Portuguese ship. He professed a real or feigned desire to be baptized, and was presented to Xavier at Malacca, who sent him to Goa. There he learned Portuguese quickly, and was baptized under the name of Paul of the Holy Faith. One of the most curious documents in the "Epistola Indicæ" \* is a short account of Japan, written from the information furnished by this man.

The missionaries appear struck for the first time with the external resemblance† between Buddhism and Catholicism; the anonymous author of the Epistle, which must have been written in 1549, finds in Japan most of the doctrines of the infallible church—one God, the Miraculous Conception, the Trinity, Hell, Purgatory, Heaven, Angels, the worship of the saints, and the existence of one living supreme Head of the Church. The doctrines of Xagua (Sankya) were, he says, brought through China to Japan above five hundred years before, from a kingdom to the west of China named Cegnico, which he evidently imagines to have been the Holy Land, little dreaming it was the country in which he then was. Christianity, the writer had just been informed by a bishop

\* "Epistola Indicæ," Louvani, 1566, pp. 175-198.

† The resemblance between the Buddhist and Roman Catholic ritual was noticed by Xavier, though it does not appear to have struck him so forcibly as we might expect. See his letter, Kagoshima, 3d Nov. 1549, and the note in the French translation, Brussels, 1838, vol. ii. p. 160. It is noticed by Bouhours, "Vie de Saint-François Xavier," in his chapter on Japan, and by Bartoli, lib. iii. cap. vi. See also Alcock's "Japan," vol. i. p. 336, vol. ii. p. 309. The Catholic ritual has in like manner been mistaken for that of Buddhism. Jerome Xavier, while residing at the court of the great Akber, was informed by a traveller that the people of Cathay were Christians, which induced the father to send a missionary to China through Thibet. In the subsequent pages it has not been thought necessary to cite all the authorities consulted in writing this article. Most of the "Literæ Annæ," and other rare works of the Jesuit missionaries, are in the library of the Museum Calvet at Avignon, where we have consulted them. Some of them will be found with difficulty elsewhere.

\* In a letter, dated Cochin, 14th January, 1549, Xavier enumerates twenty Jesuit missionaries already in the Indies; four of whom were at the Moluccas, two at Malacca, ten in India, and four at Socotora.

of the Armenian Church, had once been preached in China. It might, he thinks, have been altered and disfigured by some impostor like Mahomet, and thus Xavier, whose intended voyage to Japan was announced, would only have to restore the true faith to its original purity. Some of the points of analogy mentioned in the little treatise were entirely fanciful, yet no two religions of independent origin can resemble one another more closely in external ritual, and yet differ more thoroughly in spirit, than the Buddhist religion and the Roman Catholic Church. Every one who has been in a Buddhist temple cannot have failed to have remarked its resemblance to a Catholic chapel : the paintings, the use of bells and rosaries, the same veneration for relics, the shaven, celibate priests, with their long robes and wide sleeves, the prayers in a dead language, the measured chant, the burning of incense, the orders of monks, nuns, and anchorites, and other institutions, characteristic of both religions, have for ages tempted Catholic missionaries to call Buddhism the devil's imitation of Christianity, and induced the learned to conclude that the ritual of the one has been borrowed from that of the other, though it has not been agreed which was the copyist.

Having carefully arranged the affairs of the Seminary of the Holy Faith at Goa and the entire machinery of the mission, Francis Xavier took ship for Malacca on the 14th April, 1549. On the 24th of June he sailed for Japan, along with Angero and his two companions, in a Chinese junk belonging to a famous pirate, an ally of the Portuguese, who left in their hands hostages for the safety of the apostle on the voyage.\* After a dangerous voyage they reached Kagosima, the native town of Angero, under whose auspices Xavier was well received by the governor, magistrates, and other distinguished people. The apostle was unable to commence his mission at once, though, according to his biographers, he possessed the gift of tongues. "We are here," he writes, "like so many statues. They speak to us, and make signs to us, and we remain mute. We have again become children, and all our present

occupation is to learn the elements of the Japanese grammar." His first impressions of Japan were very favorable, and remind us of those of our own ambassador, Lord Elgin, when, after a long interval, those islands were again opened to European commerce. Japan was then, as now, under the nominal rule of the Dairi or Mikado, who resided at Miako, but his power was wellnigh reduced to the privilege of giving titles. The authority of the Cubo or Siogun had also become very much relaxed, and the islands were divided amongst fourteen kings,\* who in their turn counted chieftains under them that pretended to a greater or less degree of independence, according to their strength or opportunity. Their power depended upon the number of their armed retainers, whose services they rewarded by grants in land. There were few merchants, and the laboring classes were little regarded. Japan was then celebrated for its gold and pearls, but owing to the smallness of trade the country still remained poor. The arts seemed to have made as much progress as in Europe. Xavier evidently considers the Japanese as a nation not behind any European one in civilization, and speaks of Miako as a greater city than Lisbon. He noticed the same strange customs as our travellers of to-day. Amongst them, the well-known practice of Hara-Kiri, or suicide, is not wanting.

Five hundred years before, the religion of Buddha had been introduced from China, and the ancient idols broken (*idolis communitis*). This primitive form of devotion, the worship of the Camis or Sintos, which Buddhism has not yet entirely supplanted, seems to have consisted in the adoration of the powers of nature, and the apotheosis of great kings and heroes.† We learn

\* Solier, "Histoire ecclésiastique des Isles et Royaumes du Japon," Paris, 1627, enumerates sixty-six independent kings, over whom the Dairi was nominally paramount. But what extensive knowledge would it demand to prove such a proposition? We have taken the number given by Angero in "Epistolis Indicis," *ut cit.* The Jesuit chroniclers always call the Mikado the Dairi, a name now used for the court of the Mikado; in the same way they call the Siogun the Cubo, or Cubosama. The word Tycoon, unfortunately adopted in the recent commercial treaties, is neither Japanese nor European, and has now little chance of coming into use since the office of the Siogun has been lately suppressed.

† See an interesting article of Father Mounicou,

\* Tursellinus, "De Vita Francisci Xaverii," 1596, lib. iii. cap. xix.; Lucena, "Vida," livro vi. capitulo xiv. p. 413.

from some of Xavier's successors that Buddhism was divided into two great sects, the most numerous of which was called Xodoxins, who devoted themselves to the worship of Amida. The second was called Foquexus from the book Foque, which contained their revelation written in a foreign language. They were the followers of Xaca or Xagua (Sankya). Mr. Dickson thinks that the Bonzes or Buddhist priests were now at the height of their power, but it was the opinion of the early Jesuit fathers that the Bonzes had already lost much of their influence and most of their revenues, which were originally large. They now subsisted principally upon alms, and upon the sums received from their religious ministrations and attendance upon funerals. We are told, however, by Xavier that most of the learning of the country and the education of the youth were still in their hands.

There was also in Japan a materialistic school of philosophy, as in India and China. It was confined to the upper classes, and only taught in secret. The Japanese, writes Xavier, surpassed in probity all the nations he had ever met with. They were ingenious, frank, faithful, fond of honor and of dignity. They had a passion for bearing arms, were poor, and lived on rice and a spirituous liquor distilled from it, but they were contented, and the nobility despised plebeian opulence. He notices again and again, with admiration, that almost every Japanese can read, and the defective ideographic characters strike him as better than our phonetic symbols, for he observes that people who use different languages, such as the Chinese and Japanese, are equally able to understand the same signs. He also remarks that the people are of an inquiring turn, candid, and ready to yield to the force of argument. When he had learned enough of the language to speak a little of it, he commenced his mission. Angero had already made some converts among his household relations and friends, but these attempts do not seem to have attracted much opposition, and even Xavier's first preachings excited more attention than contradiction. For the first time in Japan, he preached a personal

God, the Creator of the Universe, and showed the materialistic tendency of the Buddhist religion. His old lectures at the College of St. Barbe in Paris no doubt stood him in good stead. He had already had an interview with the King of Satsuma, who had forgiven Angero for his crime, and who now granted to Xavier an edict allowing his subjects the liberty of embracing the Christian religion. On the 3d of November, 1549, Xavier again writes, directing three of the best missionaries to come out to join him, finding the disposition of the Japanese very favorable to the Gospel. He also mentions that two bonzes intended to proceed to Goa to be educated at the College of the Holy Faith. His next letter is dated nearly a year after; he had passed the time in studying Japanese, into which language he had translated the principal articles of the Creed, and a short account of the Creation. He had made about a hundred converts, but the King of Satsuma began to look coldly on Xavier and his companions, because the Portuguese vessels, which had at first always come to Kagosima, now sailed to Firando,\* enriching his enemy. Mr. Dickson informs us that Kagosima is not a place well fitted for a large trade, being too far out at sea, and cut off by high ranges of hills from the interior. Nevertheless, this desertion made the king disposed to listen to the representations of the Bonzes as to the danger of the people renouncing the religion of their ancestors, and he ordered that any one who received baptism should be put to death. This intolerant decree compelled Xavier to leave Kagosima for Firando, but as he and his companions could not yet speak the language fluently, they did not make more than a hundred converts. They then left for Amanguchi, the residence of a powerful native prince, and afterwards went to Miako, but finally took up their abode at Amanguchi. The ruler of this place gave Xavier permission to preach the Gospel within the bounds of his principality, and assigned him and his companions an unoccupied monastery for their residence. Here Xavier lectured twice a day upon the Japanese religion. His discourses were numerously attended by the Bonzes, the nobility, and the common people. At the end of every lecture

a Catholic missionary, now or lately in Japan, on "Mythologie japonaise" "Revue de l'Orient," Feb. 1863; also the introduction of M. Klaproth, *op. cit.*

\* Solier. liv. ii. chap. iv.

he answered the objections which were made against it, and, as he tells us, with signal success. He remarks that those who were most eager and pointed in their opposition were the first to be converted, became his most intimate friends, and revealed to him the peculiar doctrines of the different religious sects. Day and night he was besieged by a crowd of importunate questioners, and called without ceremony to satisfy the curiosity of the great. The result of the conferences, which lasted two months, was the conversion, or at least the baptism, of five hundred people. Xavier left Japan on the 20th November, 1551, after a stay of two years and four months.

In his controversies with the Japanese, Xavier had been continually met with the objection—how could the Scripture history be true when it had escaped the notice of the learned men of China? It was Chinese sages who had taught philosophy and history to the Japanese, and Chinese missionaries who had converted them to Buddhism. To China, then, would he go to strike a blow at the root of that mighty superstition. Accordingly he sailed from Goa about the middle of April, 1552, with a merchant, named James Pereira, who was to act as ambassador to the Emperor of China. On arriving at Malacca, this man becoming involved in a quarrel with the Portuguese governor, was forcibly detained, and Xavier went on alone to the island of San-Cean, a place of rendezvous between the Chinese and Portuguese merchants, distant about half a day's sail from Canton. But no one had the courage to brave the penal laws which guarded the entrance of foreigners into China; and being a prey to continual anxiety to reach the new scene of his labors, Xavier fell ill, apparently of remittent fever, and died on the 2d of December, 1552. According to a story which is believed throughout the Catholic world, his body was miraculously preserved from corruption, and was fifteen months after landed at Goa, perfectly fresh and soft as if he had died the day before. It was consigned with great solemnity to its last resting-place in the vault of the Church of the Holy Faith at Goa, where it still remains an object of pilgrimage and religious veneration to the native Christians of the Malabar coast, who regard the Apostle of the Indies as in no way behind the immediate disciples of Christ, and

attribute to him a long roll of the most astounding miracles and prodigies. One who reads the wonderful tales of the acts of canonization of Saint Francis Xavier a hundred years after his death will be a little astonished on hearing the manner in which his successor at Goa, Melchior Nunez, speaks of these extraordinary performances a few years after they are assumed to have taken place. "Many things became known of him after death which, while he still lived, remained unknown." Xavier himself, save in one ambiguous passage of his letters,\* never alludes to any of the astounding miracles so freely ascribed to him by his biographers of later date. It would be but a waste of space to celebrate in a formal eulogium the wonderful labors this man underwent, his extraordinary courage, energy, and self-denial; the sweetness of his disposition, and his affectionate concern for the souls of his fellow-creatures. His faults were those of his age and creed,—intolerance to other religions save his own, and a too great readiness to resort to the temporal arm for the conversion of the heathen. As portrayed in his own letters, and by Lucena and his succeeding biographers, he stands the very image of a true, brave, accomplished, and persuasive missionary. To this day he is the ideal and pattern of his successors in the work amongst the Roman Catholic clergy; and his example, traditions, and precepts, have everywhere exercised a pervading and lasting influence upon the course and conduct of the different missions which he founded.

The result of Xavier's labors was the formation of a mission which, from Goa as a centre, radiated over much of the coast of Asia from Ormuz to Japan. Its powers of propaganda were most felt on those parts of the coast more directly exposed to the secular influence of Portugal, and especially in the Portuguese possessions, where the terrors of the Inquisition were put in practice to spread the Catholic Faith. The number of Roman Catholics now existing on the Malabar coast probably amounts to half a million, but a large proportion of them are half-caste descendants of the Portuguese—the result of those dissolute amours which Xavier condemned. Their religion, however, is only a base and degenerate graft

\* See letter dated Cochin, 12th January, 1544.

of Catholicism upon the rotten trunk of Paganism. Even at the present day the native Christians are inferior to the Mahometans and Hindus of Northern India in intelligence and morality. Thus the attempt of Xavier to introduce a vigorous and thriving shoot of Christianity into India has been, after all, a failure—a failure which liberal Catholics themselves acknowledge.

Far different was the history of the church which Xavier had planted in Japan with his own hands, which grew up without the sunshine of political favor, and which, as he had foretold, struck a deep root in the soil. The Jesuits have left us long and circumstantial accounts of the history of Christianity in Japan. They are compiled from the missionary reports, many of which have also been printed in a separate form. These documents give a much more trustworthy account of Japanese history and manners than can be obtained from the stilted information published by residents at the open ports since the recent commercial treaties. The Jesuit priests learned the Japanese language, and mixed with the people in all the relations of life. They joined with the great in their entertainments, and often in their intrigues and schemes of ambition; they were conversant with the sorrows and joys of the poor; and the deep confidence of the Confessional gave them an insight into the feelings and thoughts of every class of society, which the Japanese government of to-day with their innumerable spies can never obtain. No doubt these accounts are sometimes unfaithful in detail, and rarely do justice to the opposite side; but though one is often wearied with stories of silly miracles and with prosy discourses, it is clear that the authors looked narrowly to the chain of human events, and had an accurate knowledge of the politics and passing history of the countries in which they lived. The unfavorable side of the picture is supplied by the observation of Dutch and English travellers of the seventeenth century, and by the complaints of rival orders such as the Franciscans and Dominicans; but we must not look to them for a connected historical narrative.

Mr. Venn, who has carefully studied the "Letters of Xavier," did not even perceive the historical value of the "Literæ Annuae" of the Jesuits:—

"I have looked," he writes (p. 209), "into the various collections of 'Epistola Japonicæ,' but, like the 'Epistola Indicæ,' they are filled with legends, and it is impossible, after reading 'Xavier's Letters, to open those pages without the conviction that we have passed out of the regions of truth into those of exaggeration, suppression, and fiction."

Writers on the present condition of Japan have entirely neglected these important documents. Even Mr. Dickson, in his recently published book, which comprises a complete history of Japan, and gives a general account of the history of Christianity in the islands more accurately than any preceding writer in the English language, seems not to have read the original Letters of the Jesuit Missionaries. It is difficult to trace the sources of his information, for his citations are few and vague, and he seems to have drawn most of his facts from a "History of the Church of Japan," apparently that of Crasset. Still his work is the most valuable one that has yet appeared. He has compared the Jesuit history with the "Japanese Chronicles," and has had the additional advantage of visiting Japan and conversing with some of the Japanese.

The two missionaries, whom Xavier had left at Japan, were soon after joined by three others; and in 1556 they were visited by the Provincial of the Order in the Indies, Melchior Nunez, who paid much attention to the Japanese mission and selected for it the best missionaries, as Xavier had recommended. The Provincial was accompanied to Japan by the well-known Mendez Pinto, the author of one of the few well-written books in the Portuguese language. Cosmo de Torrez, a layman who had been induced by the preaching and example of the "Apostle of the Indies" to enter the order of Jesus, remained at the head of the mission, as Xavier had left him. The missionaries guided the trade with the Portuguese; and several of the petty princes of Kiusiu were so anxious to attract to their dominions this lucrative traffic that they repeatedly cajoled the good fathers with hopes of their becoming converts.

The Jesuits attached themselves to the fortunes of the King of Bungo, a restless and ambitious prince, who in the end added four little kingdoms to his own, and thus became master of a large part of the Island of Kiusiu. In his dominions Chris-

tianity made such progress that the number of converts began to be counted by thousands. The King of Bungo always remained the friend of the Jesuit missionaries, and fostered the trade with the Portuguese. He long remained a disciple of the materialistic philosophy; but twenty-seven years after his first interview with Xavier he followed the example of his queen, and was baptized under the name of Francis. The missionaries perseveringly sought to spread their religion by preaching, public discussion, the circulation of controversial writings, the instruction of the youth, the casting out of devils, the performance of those mystery plays so common in that age, by the institution of *confréries* like those of Avignon, and, above all, by the well-timed administration of alms. Nor need we be surprised to learn that their first converts were principally the blind, the infirm, and old men one foot in the grave. There are, however, many proofs in their letters that they were able both to attract proselytes of a better class and to inspire them with an enthusiasm which promised well for the growth of the mission. In those early days the example of Xavier was still fresh; and his immediate successors seem to have inherited his energetic and self-denying disposition, though none of them could equal the great mental and moral qualities of the Apostle of the Indies. They kept at the same time a watchful eye upon the political events that were going on around them, and soon began to bear a part in them. The hostility between them and the Bonzes became more and more bitter. The first public display of religious violence, however, came from the Christian party,\* who, in revenge for the overthrow of a Cross, which they traced to the instigation of the Bonzes, set fire to the dwellings of their opponents, burned some of their idols, and threw the rest into the sea. This excited so much hostility against the missionaries that, although the outrage had been committed without his knowledge and consent, Father Vilela was obliged to leave Firando.

The first chief who publicly professed Christianity, the King of Omura, in the

island of Kiusiu, was thrice expelled from his capital, and another time from his palace, by conspiracies of the Pagans, who nearly succeeded in drawing the two principal missionaries into an ambuscade, in which a Japanese nobleman of the Christian party was murdered. It would be difficult to say what share the Jesuits bore in these troubles; but if we remember their well-known policy, we shall be disposed to repeat in much the same spirit the accusation of a Bonze of Miako, as early as 1564, that "all the lands where these new preachers placed their feet were suddenly destroyed by war and faction."

They had reached Miako in 1559, where they met with toleration from the secular government, and were even suffered to build a church and make several hundred converts. The missionaries led a troubled existence, and had several times to quit the capital from the intrigues of the Bonzes, who only waited an opportunity to banish or destroy them, but found themselves baffled by the caution, tact, and political address of the strangers.

The Jesuits found a friend and protector in Nobunanga, who, whilst styling himself the avenger of the murdered Siogun and the protector of his successor, in reality arrogated to himself the whole power of the empire. Nobunanga was tall and slender, with a delicate form and scanty beard; he was a daring and successful soldier, and a shrewd, subtle, and wary politician; he cared little for the princes of Japan, and still less for its idols, which he treated as stupid inventions. He bore a bitter hatred to the Bonzes, whose temples and monasteries he despoiled and demolished to build a new palace, causing the very images of Buddha to be torn from their shrines and dragged with a rope round their necks through the streets of Miako, where, for a time, the Bonzes did not dare to show themselves. He forced the principal citizens to put their own hands to the work, which he superintended himself, wearing a tiger's skin and carrying a naked sword in his hand, with which he occasionally struck off the heads of those who offended him. The Bonzes naturally took an active part against Nobunanga in an insurrection; but he, gaining the upper hand, led his army against their sacred seat at the foot of the mountain of Frenoxama, burnt their ancient monasteries, and put all those he found to

\* Solier, liv. iii. chap. viii. Crasset, "Histoire de l'Église du Japon," Paris, 1715, tome i. liv. iii. chap. liv. Consult also Maffaeus "Select. Epistol. ex India," lib. i.

the sword.\* This terrible ruler granted the Jesuits full liberty to rebuild their church at Miako, and to preach the Gospel in his dominions, even adding the privilege of exemption from taxes. Allowing for the troubled state of the country and the readiness of the Bonzes to take advantage of any popular tumult to assault the missionaries, we have reason to be astonished at the toleration shown to them; indeed, no prince in Europe of that age would have permitted a new religion to be preached through his dominions by foreign priests. The Jesuits no doubt expected that the Cross would soon be triumphantly planted on the ruins of the Buddhist temples, and the Bonzes probably associated in some way their reverses with the intrigues of the professors of the new religion, which began to number men of rank and influence.

Nobunanga, while willing to make use of the Jesuit missionaries to weaken the influence of the Buddhist priests, was so little influenced by their teaching that he formed the project of adding his own name to the list of deified rulers of Japan. He now founded a new city and built a magnificent temple, to which he removed all the most venerated idols upon which he could lay his hands. Above them all he placed a stone, bearing his own arms and devices, and demanded that every one should pay it worship, promising, in a proclamation, long life and prosperity to those who should comply. It was noticed that no Christian had obeyed the edict, and this might have subjected them to the revenge of the tyrant, had not a conspiracy been promptly formed against him, while his younger son was absent on an expedition with the flower of the army. His palace was set on fire, and he was consumed in the flames, together with his eldest son, who had been the first to worship his idol (1582).

The conspirators promised the same toleration to the Jesuit missionaries, who had now gained so many proselytes that their support was worth having. But the revolution was of short continuance; the younger son of Nobunanga, on hearing the news, returned with the army, defeated the conspirators, and took a terrible revenge

for his father's death. He was, however, soon supplanted by one of his captains, who assumed the name Taicosama. This man had once been a wood-cutter and though of low stature and appearance, had, through his valor and skill in war, raised himself to the highest rank in the army. He declared the infant child of the eldest son of Nobunanga the rightful heir to his grandfather's power, but assumed the real government himself.

The usurper at first treated the Bonzes with contempt, and caressed the missionaries, who appear to have gained over his queen, a woman of great talents, but of dissolute manners. Under her influence he issued an edict similar to that of his predecessor, permitting the Jesuits to preach the Gospel throughout all Japan, with exemption from taxes.

Every one in Nippon now obeying him, he passed over into Kiusiu, and received the fealty of its kings. The appearance of Christianity, especially in the north of that island, was most flourishing. The Christian party, now the strongest, had gained the support of the ruling party, and the Bonzes had been banished from the states of Bungo, Arima, and Omura; their temples had been destroyed, and their revenues seized upon. In Omura, whose ruler had vowed that he would tolerate idolatry no longer, the Jesuits had baptized 35,000 people in two years (1575-76). The King of the isle of Gotto also had professed Christianity, and the King of Tosa, in the island of Sikok, had been baptized, and had with much difficulty quelled a rebellion which followed his conversion. According to Crasset, the total number of Japanese Christians, in 1587, was 200,000. In Nippon the Jesuits had gained numerous converts, some of them people of rank and power, among others, a distinguished general of Taicosama, named Justo Uncondono (Takayama), who demolished the temples within his lands, and forced his vassals to be Christians.

But the imprudent readiness which the Jesuits had shown in resorting to such violent measures in the island of Kiusiu had revealed the nature of their designs and policy. Moreover, it is likely that the Japanese had learned their character from other sources. Some Japanese travellers had reached Goa and Malacca, where they must have observed the religious persecutions the native population had

\* See the letter of Louis Froes, dated Miako, August, 1572, in the collection of Mafiaeus, for a description of the massacre of the Bonzes and the destruction of their temples.

endured ; and the missionaries complain of the damage done to their cause by the dissolute lives of the Portuguese merchants, especially by their carrying away girls for the harems of Goa and Macao.

We must pass over the history of the missionaries during the remainder of the reign of Taicosama. Though sometimes persecuted and threatened more than once with expulsion from his dominions, they continued to make progress. The most violent persecution to which they were exposed was in the year 1596. The courage displayed by the Japanese converts on this occasion seems to have been worthy of the times of the early Church. Some demanded to be put on the list of Christians, others went to the houses of the fathers, desiring leave to remain there, in order that they might share with them the glory of a martyrdom so different from their own notions of an honorable death. The large number of names upon the roll of Christians startled the Siogun : but, without any regard to the petitions of the Jesuits that the statutes against the offending missionaries should be commuted to exile, six Franciscans, three Jesuits, and fifteen lay members of the mission were seized upon and conducted to Nagasaki, where they were impaled alive. They all met their fate with heroic constancy. But the Christians were saved from further danger by the death of Taicosama, which took place in 1598. Feeling his last hour approach, the sagacious usurper had employed his remaining energies in making arrangements to secure his office to his son, Fide-jori, then a minor ; the regency was committed to Iyeyas, Prince of Quanto, to whose daughter the young prince was betrothed. Four other governors were appointed to divide the regent's power, and, if possible, curtail his ambition ; and five Daimios held the office of tutor or curator to the young prince. Taicosama left orders that he should be deified as the god of war. One of the Jesuits was admitted to visit him with some European presents on his last illness. He received him courteously, and ordered the fathers to be presented with two hundred sacks of rice and a ship fit to take them back to their own country, a present whose significance no one could mistake.\*

Everywhere in this age we meet with those daring and intriguing priests. We find them at Agra, disputing with the learned scholars at the court of Akber, the greatest of the house of Timur Khan ; in the suite of the warlike Emperors of the Mantchu Tartars, the invaders of China—at the same time fanning the hopes of the failing Chinese dynasty of Ming ; in the heart of Africa, as the counsellors of the great Emperor of Abyssinia, inciting him to war against his subjects for the unity of the Catholic Faith, in the same way as they armed assassins to slay the King of France and the heretic Prince of Orange, and formed a conspiracy to blow up by gunpowder the King and Parliament of England. We find them seeking for the sources of the Nile, which they knew issued from the great lakes near the equator ; exploring the Canadian lakes ; seeking the sources of the Amazon and La Plata, and bringing to Europe the fever-healing bark of the cinchona-tree. We see a brother of the same order, a little spare old man, whom they called Count Tilly, seated on a war-horse, watching with pitiless eye the sack and massacre of Magdeburg. Even at Yarkand, across the Himalayas, in the very centre of Asia, where, a few years ago, our own pilgrim of science—the unfortunate Schlagintweit—was beheaded, do we behold one of those missionaries of Catholicism with a turban on his head, and armed with sword and bow and quiver, searching for the half-fabulous kingdom of Cathay.

One of the most powerful of the Japanese princes at this time was a Christian, called by the missionaries Don Augustin (Tsucamidono), King of Fingo and Grand Admiral of Japan, who had commanded the Japanese troops in the invasion of Corea during the reign of Taicosama. Having returned shortly before the death of the latter, Don Augustin now became the head of the Christian party in Japan, with military reputation enhanced by a great victory he had just gained over the Chinese fleet. Though a zealous Catholic, he was also an able, bold, and ambitious politician, who perceived that his own personal aggrandizement would be promoted by the spread of the new religion. His possessions in Japan were very exten-

\* The interview is described in a letter of Francis Pasius, in the collection of letters, "De Rebus

Japonicis, Indicis et Peruanis," by John Hay, of Dalgetty, a Scotch Jesuit. Antwerp, 1605.

sive, and, as the recognized head of the Christian party, he could count upon every Christian proselyte throughout the empire as his well-wisher. He allowed the fathers to employ force in order to induce his own subjects to become Christians. On his lands the work of conversion was pushed with such rapidity that, from the death of Taicosama to the year 1600, the baptisms, exclusive of infants, reached the number of seventy thousand. It was thought that Paganism would soon entirely disappear ; and Christian converts from all parts of Japan came to live under his rule. He founded a college in the isle of Amacusa, where the Jesuits taught Latin, music, and the rudiments of European science to the sons of the nobility. Here, too, they established a printing-press, translated several religious works into Japanese, and printed thousands of controversial tracts.

Meantime dissensions broke out between Iyeyas and the other governors and tutors in charge of the young prince. Nine Daimios of Japan, seeing with disappointment that the strong rule of the regent left them no hope of regaining their former independence, entered into a league against him. At the head of it was Gibonoscio, a man of too irresolute a character to lead such a combination, and who thus looked for assistance to the great political and military talents of the Christian prince of Fingo. Don Augustin joined the league ; but the fortune of war turned against the confederates ; he was defeated in battle, taken prisoner, and conducted with two other chiefs to Miako. He refused the good offices of the Bonzes, who followed his two companions to the scaffold. "Go away," said he ; "I am a Christian, and have nothing to do with such fooleries." He then placed thrice upon his head a picture of Christ and the Virgin, and, pronouncing the sacred names of Jesus and Mary, submitted to the headsman's stroke. His body, wrapped up in a silken shroud, was conveyed to the dwelling of the Jesuits at Miako. Sewed up in the shroud were found letters to his wife and children, containing a few of those simple reflections upon the instability of human affairs, and the importance of serving God, which seem to strike men most in their adversity.

Iyeyas, better known by the name of Daifusama, no longer disguised his intention of retaining in his own family the dig-

nity which he had received in trust. He did not, however, at first molest the Christians, who were still in a flourishing condition except in the kingdom of Fingo, where the successor of Don Augustin stopped at no measures necessary to revise the policy of his predecessor. But nowhere had the persecutions been so steadily continued as to destroy Christianity : if one petty prince persecuted the Christians, they could take refuge in the domains of another. Often they selected provinces where the new religion was less known, and so opened a way to the missionaries. Christianity was thus diffused through all Japan, even to Yesso,\* but in very unequal proportions. The Christians were most numerous in Kiusiu, and were comparatively few in the northern and western parts of Nippon. The Jesuites reckoned about 1,800,000 Japanese converts, with 900 priests, 124 of whom were of the Order of Loyola. The rest belonged to some other of the missionary orders ; there were few of the secular clergy in Japan.† But the destruction of the new religion was in all probability already planned ; and several circumstances contributed to harden this determination into a measure of state policy, hereditary in the house of Iyeyas.

The hostile cruisers of Holland now appeared in the Japanese waters (1602), and the Dutch did what they could to expose the policy of the Jesuites.‡ The Prince of

\* There is a curious account of this then unknown island by Jerome des Anges at the end of "Relations du Japon de l'an 1619," Paris, 1625.

† Many of the priests were Japanese. The Dominicans were most numerous after the Jesuites and Franciscans. We have consulted their accounts, but with little fruit. In 1622 the Franciscans counted six hundred thousand Christians remaining in Japan. See Rapine, XIth Decade, p. 704. This work, entitled "Histoire Générale de l'Origine et Progrès des Frères Mineurs de Saint François, par R. P. Rapine" (Paris, 1631), gives us the advantage of a contemporary record from an independent source to compare with the "Letters" of the Jesuites.

‡ The calumnies the Jesuit suffered from an English captain of a Dutch ship (William Adams, no doubt) are recorded at due length in their "Epistole Annuæ." The following passage is plain enough—"Ma li Mercanti Inglesi e Olandesi sono stati quelli, che hanno fomentato e accresciuto il desiderio, che nel petto del Ré ardeva di conservare il Regno." (Lettera Annuæ del Giappone dell' Anno 1613. In Roma, 1617.) That the Japanese knew the game which the Catholic missionaires were playing in the Philippines, and feared its repetition in their own islands, is proved by the colloquy between a Jesuit and a Japanese noble-

Arima had been dethroned by his son, who became a Pagan, and the Prince of Omura, disgusted by some crafty intrigue of the Jesuits, deserted their cause. The conquest of the Philippine Islands by the Spaniards, which was powerfully aided by the preaching of the Jesuits and Franciscans, and by the forced conversion of the natives, filled the minds of the Japanese with alarm and distrust. The missionaries generally date the commencement of the great persecution at 1612. The truth is, persecution seems never to have raged with equal severity all over Japan. In 1613 twenty-eight Christians suffered death in the city of Yedo, but in 1614 they had a college and two hospitals at Nagasaki, and a college at Miako, where they counted 7,000 Christians. Nevertheless, their religion was doomed. Henceforth the history of Catholicism in Japan is but that of a relentless persecution enforced upon the Daimios by the Siogun. The persistent and courageous fortitude of the Christians, and the terrible determination of their persecutors to destroy every vestige of the new religion at whatever cost, are both significant of the Japanese character. We notice the same odious features as in many a persecution which the Jesuits themselves had excited against others, though several new tortures are added to the grisly horrors of martyrology. Some of the victims were swung in the air by the legs and arms with a huge stone resting on the back; others had their stomachs forcibly filled with water, which was then as violently forced out by external pressure, and others were precipitated into the boiling springs of Mount Ungen. If the Jesuits had shown themselves too little scrupulous in the means they employed to forward their propagandism, if in the days of prosperity they had yielded to the temptations of power and success, their conduct now amply proved that they were faithful to what they believed, and were ready to sacrifice their lives in defence of their flocks. Many priests had remained lurking in Japan after the persecution commenced, and many who were banished returned in various disguises. Most of them perished at the stake or on the gibbet. The honor of martyrdom is contested by the Franciscans, Dominicans, and

Augustans, who, though fewer in number, showed equal courage. They were supported in the most determined manner by the Japanese Christians, many of whom perished at the stake along with their confessors. The ashes of the martyrs were carefully gathered together and thrown into the sea, for nothing exasperated their persecutors more than the homage which the remaining Christians paid to the relics of those who had gained the crown of martyrdom. In the valuable collection, the "Voyages curieux," there is an account of the persecutions by an early Dutch trader\* who had witnessed some of them. He confirms, in the most circumstantial details, the letters of the Jesuits, especially as to those points which seem the most incredible—the astonishing constancy and heroic martyrdoms of young children. The "Annual Letters" have a calm and resolute tone, but the frequency of stories of miracles and prodigies, and especially of the finding of crosses in trees, and other questionable occurrences, give a proof of the heightened fervor of their imaginations. Fiery zealots from every part of the Catholic world made their way to Japan to gain the crown of martyrdom. Among the names of the sufferers we notice those of the Father Spinola, a grandson of the celebrated Spanish general in the Netherlands, and the Father Marcellus Francis Mastrilli. The latter, a noble Neapolitan, who had enjoyed frequent heavenly visions during his recovery from a concussion of the brain, bore from the Queen of Spain a splendid robe to wrap round the body of Francis Xavier, whose tomb was opened for that purpose during the night by several priestly dignitaries of Goa (1635). The Father Mastrilli put between the fingers of the dead man a letter declaring himself the saint's child, servant, and slave, and vowing to follow in his footsteps. He rendered important assistance to the Spaniards in the subjugation of the island of Mindanao, one of the Philippines. With much difficulty he made his way to Japan, there to perish (1637), after committing a number of extravagances.

For a moment it seemed as if Christianity would gain another chance. The Prince Fide-jori, son of Taicosama, had

man in the "Relation du Japon de l'Année 1622," p. 196.

\* Reyr Gysbertz; see *op. cit.*, Paris, 1663, 11<sup>me</sup> partie.

grown up to manhood in the great city of Ozaca, under the guardianship of an able and energetic mother. Some of the fathers had been allowed to establish an observatory there and to teach physics and astronomy, mingled with natural theology, to the prince and nobility ; and, according to Kämpfer, the Japanese writers still record that the young prince was suspected of being a Christian, and that many of his officers and courtiers professed the same religion. Singular to say, the Jesuits themselves, though they claim many proselytes in Ozaca, make no pretensions to so high a convert. At any rate the prince was disposed to tolerate and take political advantage of the new religion. Gathering a numerous army, which was commanded by a Christian general, Fide-jori made war against Iyeyas, but was defeated in a great battle, and is supposed to have perished with his mother amongst the burning ruins of the castle of Ozaca. Thus did Iyeyas become the founder of the dynasty of Sioguns, who ruled down to our own day in his capital of Yeddo.

The persecutions became bloodier and bloodier, and the trade with the Portuguese was placed under ever-increasing restrictions. No foreigners were allowed to reside in any part of Japan save Nagasaki, and all the half-caste descendants of the marriages between the Portuguese and natives of Japan were banished from the islands.

In the year 1635 the Dutch captured a Portuguese ship, in which they found letters from the Japanese Christians praying for aid. They forwarded them to the Siogun, and it is easy to imagine the result. The Christians of Arima, finding the persecutions intolerable, rose to the number of 37,000, placed at their head a descendant of their ancient kings, and seized the fortress and isthmus of Ximabra. Here they stood sternly at bay against an army of 80,000 men, assisted by the artillery of the Dutch ; but failing of provisions and the munitions of war, they sallied out, and died sword in hand. The Jesuits had already got up a mock embassy to the Siogun, which had been detected and turned back ; and in 1640 the merchants of Macao, who made their fortune by conducting a neutral trade between China and Japan, sent a ship to Nagasaki to try if commercial relations could not be re-established. The ship was seized and

burnt, thirteen of the crew sent back in a junk, sixty-one were beheaded, and a gibbet was raised on the island of Decima with this inscription :—

" As long as the sun shines in the world, let no one have the boldness to land in Japan even in quality of ambassador, except those who are allowed by the laws to come for the sake of commerce."

These were the Dutch, and every one knows by what humiliating restrictions they bought the privilege. This barbarous decree has never to this day been abrogated in a constitutional manner ; and the retainers of the Prince of Satsuma, who committed the murder which brought about the bombardment of the first city in Japan that received an European envoy in the person of Francis Xavier, perpetrated the deed in accordance with the laws of the empire, which still regards all foreigners as outlaws.

A renewed effort of the Roman Catholic clergy to penetrate into the empire of the Rising Sun was made in 1642, exactly a hundred years after the Apostle of the Indies landed at Goa to commence his eventful mission. Five Jesuits and three other priests landed in the territories of the Prince of Satsuma, but were almost immediately arrested and put to death.

In the year 1709, Mr. Dickson tells us, the Abbé Sidotti, an Italian priest of good family, made a desperate attempt to enter Japan, and succeeded in getting landed on the coast of Satsuma, where he was arrested and detained in the neighborhood of Jeddo until his death. This was the last effort made by the Church of Rome to gain converts in Japan until our own days, when these missionary efforts are being again renewed.

Kept carefully excluded from intercourse with the foreigner, the Japanese Christians gradually lost all remembrance of the faith which they had learnt from the mouths or the European priests. A thousand Japanese Christians are said to have suffered death for their religion ; the rest were kept under the closest surveillance, forced to carry the image of some idols round their necks, and were called upon at stated times to worship the gods of the empire. Some of their descendants exist at Yeddo to this day, despised as people of the most infamous class, and still bearing the name of a religion of whose creed they know

nothing.\* None will deny the necessity of studying the history and modes of thought of the Japanese if we wish to deal prudently with them ; and hence the Letters of the Jesuits, to which we have directed attention in this article, deserve and will repay careful study. The Japanese are our antipodes in more things than in geographical position.

"Nowhere," says Sir Rutherford Alcock, "is the present more completely interwoven with the past, or the impress of a nation's history and traditions more indelibly and plainly stamped in the lineaments of an existing generation than in Japan. The present is heir to the past always and everywhere in the life of nations no less than of individuals ; but the present is linked to the past in Japan in a sense so peculiar that it is worthy of special attention.

"This study of the past can alone furnish a key to the character and policy of the nation, in the possession of which lies our best hope of the future, and of turning what it may have in store to good account. We *must*, indeed, read both the present and future of Japan by the light of the past, for by such reflected light alone can either be rightly understood."

The history of Japan, up to the renewed opening of some of its ports to foreign commerce in 1858, was one of peace and prosperity. Since then it has been full of great and momentous events, presenting many difficult questions to European diplomats, and giving the greatest concern to every Japanese anxious for the welfare of his country ; but this lies beyond our present subject.

Cornhill Magazine.

#### HOURS IN A LIBRARY.

NO. I.—SIR THOMAS BROWNE.

"LET me not injure the felicity of others," says Sir Thomas Browne in a suppressed passage of the *Religio Medici*, "if I say that I am the happiest man alive. I have that in me that can convert poverty into riches, adversity into prosperity, and I am more invulnerable than Achilles ; fortune hath not one place to hit me." Perhaps, on second thoughts, Sir Thomas thought that the phrase savored of that presumption which is supposed to provoke the wrath of Nemesis ; and at any rate, he, of all men, is the last to be taken too literally at his word. He is a humorist to the core, and is here writing dramatically. There are many things in this book, so he tells us, "delivered rhetorically, many expressions therein merely tropical . . . and therefore many things to be taken in a soft and flexible sense, and not to be called unto the rigid test of reason." We shall hardly do wrong in reckoning amongst them this audacious claim to surpassing felicity, as we may certainly include his boast that he "could lose an arm without a tear, and with a few groans be quartered into pieces." And yet, if Sir Thomas were to be understood in the most downright literal earnest, perhaps he could have made out as good a case for his asser-

tion as almost any of the troubled race of mankind. For, if we set aside external circumstances of life, what qualities offer a more certain guarantee of happiness than those of which he is an almost typical example ? A mind endowed with an insatiable curiosity as to all things knowable and unknowable ; an imagination which tinges with poetical hues the vast accumulation of incoherent facts thus stored in a capacious memory ; and a strangely vivid humor that is always detecting the quaintest analogies, and, as it were, striking light from the most unexpected collocations of unpromising materials ; such talents are by themselves enough to provide a man with work for life, and to make all his work delightful. To them, moreover, we must add a disposition absolutely incapable of controversial bitterness ; "a constitution," as he says of himself, "so general that it consorts and sympathizeth with all things," an absence of all antipathies to loathsome objects in nature—to French "dishes of snails, frogs, and toadstools," or to Jewish repasts on "locusts or grasshoppers;" an equal toleration—which in the first half of the seventeenth century is something astonishing—for all theological systems ; an admiration even of our natural enemies, the French, the Spaniards, the Italians, and the Dutch ; a love of all climates, of all countries ; and, in short, an utter inca-

\* See "Voyage autour du Japon," par Rodolphe Lindau, chap. xii. p. 247. Paris, 1864.

pacity to "absolutely detest or hate any essence except the devil." Indeed, his hatred even for that personage has in it so little of bitterness, that no man, we may be sure, would have joined more heartily in the Scotch minister's petition for the "puir de'il"—a prayer conceived in the very spirit of his writings. A man so endowed—and it is not only from his explicit assertions, but from his unconscious self-revelation that we may credit him with closely approaching his own ideal—is admirably qualified to discover one great merit of human happiness. No man was ever better prepared to keep not only one, but a whole stableful of hobbies, nor more certain to ride them so as to amuse himself, without loss of temper or dignity, and without rude collisions against his neighbors. That happy art is given to few, and thanks to his skill in it, Sir Thomas reminds us strongly of the two illustrious brothers Shandy combined in one person. To the exquisite kindness and simplicity of Uncle Toby he unites the omnivorous intellectual appetite and the humorous pedantry of the head of the family. The resemblance, indeed, may not be quite fortuitous. Though it does not appear that Sterne, amidst his multifarious pilferings, laid hands upon Sir Thomas Browne, one may fancy that he took a general hint or two from so congenial an author.

The best mode of approaching so original a writer is to examine the intellectual food on which his mind was nourished. He dwelt by preference in strange literary pastures ; and their nature will let us into some secrets as to his tastes and character. We will begin, therefore, by examining the strange furniture of his mind, as described in his longest, though not his most characteristic book—the *Inquiry into Vulgar Errors*. When we turn over its quaint pages, we feel as though we were entering one of those singular museums of curiosities which existed in the pre-scientific ages. Every corner is filled with a strange, incoherent medley, in which really valuable objects are placed side by side with what is simply grotesque and ludicrous. The modern man of science may find some objects of interest ; but they are mixed inextricably with strange rubbish that once delighted the astrologer, the alchemist, or the dealer in apocryphal relics. And the possessor of this miscellaneous collection accompanies us with an unfailing flow of

amusing gossip ; at one moment pouring forth a torrent of out-of-the-way learning ; at another, making a really acute scientific remark ; and then relapsing into an elaborate discussion of some inconceivable absurdity ; affecting the air of a grave inquirer, and to all appearance fully believing in his own pretensions, and yet somehow indulging himself in a half-suppressed smile, which indicates that the humorous aspect of a question can never be far removed from his mind. The whole book, indeed, has that quality which is so delightful to the true lover of the humorous, but which, it must be confessed, is generally rather abhorrent to the vulgar, that we never quite know whether the author is serious. The numerous class which insists upon a joke being as unequivocal as a pistol-shot, and serious statements as grave as a Blue-book, should certainly keep clear of Sir Thomas Browne. His most congenial readers are those who take a simple delight in following out any quaint train of reflections, careless whether it may culminate in a smile or a sigh or in some thought in which the two elements of the sad and the ludicrous are inextricably blended. Sir Thomas, however, is in the *Inquiry* content generally with bringing out the strange curiosities of his museum, and does not care to draw any explicit moral. The quaintness of the objects unearthed seems to be a sufficient recompence for the labor of the search. Fortunately for his design, he lived in the time when a poet might have spoken without hyperbole of the "fairy tales of science." To us, who have to plod through an arid waste of painful observation and slow piecing together of cautious inferences before reaching the promised land of wondrous discoveries, the expression sometimes appears to be ironical. Does not science, we may ask with a *prima facie* resemblance of right, destroy as much poetry as it generates ? To him no such doubts could present themselves, for fairy-land was still a province of the empire of science. Strange beings moved through the pages of natural history, which were equally at home in the *Arabian Nights* or in poetical apologetics. The griffin, the phoenix, and the dragon were not yet extinct ; the salamander still sported in flames ; and the basilisk slew men at a distance with his deadly glance. More commonplace animals indulged in the habits

which they had learned in fables, and of which only some feeble vestiges now remain in the eloquence of strolling showmen. The elephant had no joints, and was caught by felling the tree against which he rested his stiff limbs in sleep; the pelican pierced its breast for the good of its young; ostriches were regularly painted with a horseshoe in their bills, to indicate their ordinary diet; storks refused to live except in republics and free states; the crowing of a cock put lions to flight, and men were struck dumb in good sober earnest by the sight of a wolf. The curiosity-hunter, in short, found his game still plentiful, and by a few excursions into Aristotle, Pliny, and other more recondite authors, was able still to display a rich bag for the edification of his readers. Sir Thomas Browne sets out on that quest with all imaginable seriousness. He persuaded himself, and he has persuaded some of his editors, that he was a genuine disciple of Bacon, by one of whose suggestions the *Inquiry* is supposed to have been prompted. Accordingly, as Bacon describes the idols by which the human mind is misled, Sir Thomas sets out with investigating the causes of error; but his introductory remarks immediately diverge into strange paths, from which it is obvious that the discovery of true scientific method was a very subordinate object in his mind. Instead of telling us by what means truth is to be attained, his few perfunctory remarks on logic are lost in an historical narrative, given with infinite zest, of the earliest recorded blunders. The period of history in which he most delighted was the antediluvian—probably because it afforded the widest field for speculation. His books are full of references to the early days of the world. He takes a keen personal interest in our first parents. He discusses the unfortunate lapse of Adam and Eve from every possible point of view. It is not without a visible effort that he declines to settle which of the two was the more guilty, and what would have been the result if they had tasted the fruit of the Tree of Life before applying to the Tree of the Knowledge of Good and Evil. Then he passes in review every recorded speech before the Flood, shows that in each of them, with one exception, there is a mixture of falsehood and error, and settles to his own satisfaction that Cain showed less "truth, wisdom, and reverence" than

Satan under similar circumstances. Granting all which to be true, it is impossible to see how we are advanced in settling, for example, whether the Ptolemaic or the Copernican system of astronomy is to be adopted, or in extracting the grains of truth that may be overlaid by masses of error in the writings of alchemists. Nor do we really learn much by being told that ancient authorities sometimes lie, for he evidently enjoys accumulating the fables, and cares little for showing how to discriminate their degree of veracity. He tells us, indeed, that Medea was simply a predecessor of certain modern artists, with an excellent "recipe to make white hair black;" and that Actæon was a spirited master of hounds, who, like too many of his ancestors, went metaphorically, instead of literally, to the dogs. He points out, moreover, that we must not believe on authority that the sea is the sweat of the earth, that the serpent, before the Fall, went erect like man, or that the right eye of a hedge-hog, boiled in oil, and preserved in a brazen vessel, will enable us to see in the dark. Such stories, he moderately remarks, being "neither consonant unto reason nor correspondent unto experiment," are unto us "no axioms." But we may judge of his scepticism by his remarks on "Oppianus, that famous Cilician poet." Of this writer, he says that, "abating the annual mutation of sexes in the hyena, the single sex of the rhinoceros, the antipathy between two drums of a lamb's and a wolf's skin, the informity of cubs, the venation of centaures, and some few others, he may be read with delight and profit." The some "few others" is charming. Obviously, we shall find in Sir Thomas Browne no inexorably severe guide to truth; he will not too sternly reject the amusing because it happens to be slightly improbable, or doubt an authority because he sometimes sanctions a mass of absurd fables. Satan, as he argues at great length, is at the bottom of most errors, from false religion down to a belief that there is another world in the moon; but Sir Thomas takes little trouble to provide us with an Ithuriel's spear; and, indeed, we have a faint suspicion that he will overlook at times the diabolic agency in sheer enthusiasm at the marvellous results. The logical design is little more than ostensible; and Sir Thomas, though he knew it not himself, is really satisfied

with any line of inquiry that will bring him in sight of some freak of nature or of opinion suitable to his museum of curiosities.

Let us, however, pass from the anteroom, and enter this queer museum. We pause in sheer bewilderment on the threshold, and despair of classifying its contents intelligibly within any moderate space. This much, indeed, is obvious at first sight—that the title “vulgar errors” is to some extent a misnomer. It is not given to vulgar brains to go wrong by such complex methods. There are errors which require more learning and ingenuity than are necessary for discovering truths; and it is in those queer freaks of philosophical minds that Sir Thomas specially delights. Though far, indeed, from objecting to any absurdity which lies on the common high-road, he rejoices in the true spirit of a collector when he can discover some grotesque fancy by rambling into less frequented paths of inquiry. Perhaps it will be best to take down one or two specimens, pretty much at random, and mark their nature and mode of treatment. Here, for example, is that quaint old wonder, the phoenix, “which, after many hundred years, burneth itself, and from the ashes thereof ariseth up another.” Sir Thomas carefully discusses the pros and cons of this remarkable legend. In favor of the phoenix, it may be alleged that he is mentioned “not only by human authors,” but also by such “holy writers” as Cyril, Epiphanius, and Ambrose. Moreover, allusions are made to him in Job and the Psalms. “All which notwithstanding,” the following grave reasons may be alleged against his existence: First, nobody has ever seen a phoenix. Secondly, those who mention him speak doubtfully, and even Pliny, after telling a story about a particular phoenix which came to Rome in the censorship of Claudius, unkindly turns round and declares the whole story to be a palpable lie. Thirdly, the name phoenix has been applied to many other birds, and those who speak unequivocally of the genuine phoenix, contradict each other in the most flagrant way as to his age and habitat. Fourthly, many writers, such as Ovid, only speak poetically, and others, as Paracelsus, only mystically, whilst the remainder speak rhetorically, emblematically, or hieroglyphically. Fifthly, in the Scriptures, the word translated “phoenix” means a palm-

tree. Sixthly, his existence, if we look closely, is implicitly denied in the Scriptures, because all fowls entered the ark in pairs, and animals were commanded to increase and multiply, neither of which statements are compatible with the solitary nature of the phoenix. Seventhly, nobody could have known by experience whether the phoenix actually lived for a thousand years, and, therefore, “there may be a mistake in the compute.” Eighthly, and finally, no animals really spring, or could spring, from the ashes of their predecessors, and it is impossible to believe that they could enter the world in such a fashion. Having carefully summed up this negative evidence—enough, one would have fancied, to blow the poor phoenix into summary annihilation—Sir Thomas finally announces his grave conclusion in these words—“How far to rely on this tradition we refer unto consideration.” And yet he feels impelled to add a quaint reflection on the improbability of a statement made by Plutarch, that “the brain of a phoenix is a pleasant bit, but that it causeth the headache.” Heliogabalus, he observes, could not have slain the phoenix, for it must of necessity be “a vain design to destroy any species, or mutilate the great accomplishment of six days.” To which it is added, by way of final corollary, that after Cain had killed Abel, he could not have destroyed Eve, supposing her to have been the only woman in existence; for then there must have been another creation, and a second rib of Adam must have been animated.

We must not, however, linger too long, with these singular speculations, for it is probable that phoenix-fanciers are becoming rare. It is enough to say briefly that if any one wishes to understand the natural history of the basilisk, the griffin, the salamander, the cockatrice, or the amphisboëna—if he wishes to know whether a chameleon lives on air, and an ostrich on horseshoes—whether a carbuncle gives light in the dark, whether the Glastonbury thorn bore flowers on Christmas-day, whether the mandrake “naturally groweth under gallowses,” and shrieks “upon eradication”—on these and many other such points he may find grave discussions in Sir Thomas Browne’s pages. He lived in the period when it was still held to be a sufficient proof of a story that it was written in a book, especially if the book

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were Latin ; and some persons, such as Alexander Ross, whose memory is preserved only by the rhyme in *Hudibras*, argued gravely against his scepticism.\* For Sir Thomas, in spite of his strange excursions into the marvellous, inclines for the most part to the sceptical side of the question. He was not insensible to the growing influence of the scientific spirit, though he believed implicitly in witchcraft, spoke with high respect of alchemy and astrology, and refused to believe that the earth went round the sun. He feels that his favorite creatures are doomed to extinction, and though dealing lovingly with them, speaks rather like an attached mourner at their funerals than a physician endeavoring to maintain their flickering vitality. He tries experiments and has a taste for dissection. He proves by the evidence of his senses, and believes them in spite of the general report, that a dead kingfisher will not turn its breast to the wind. He convinced himself that if two magnetic needles were placed in the centre of rings marked with the alphabet (an odd anticipation of the electric telegraph, *minus* the wires) they would not point to the same letter by an occult sympathy. His arguments are often to the point, though overlaid with a strange accretion of the fabulous. In discussing the question of the blackness of negroes, he may remind benevolent readers of some of Mr. Darwin's recent speculations. He rejects, and on the same grounds which Mr. Darwin declares to be conclusive, the hypothesis that the blackness is the immediate effect of the climate ; and he points out, what is important in regard to "sexual selection," that a negro may admire a flat nose as we admire an aquiline ; though, of course, he diverges into extra-scientific questions when discussing the probable effects of the curse of Ham, and rather loses himself in a "digression concerning blackness." We may fancy that this problem pleased Sir Thomas rather because it appeared to be totally insoluble than for any other reason ; and in spite of his occasional gleams of scientific observation, he is always most at home when on the borderland which divides the purely marvellous from the region of ascertainable fact. In the last half of his book,

\* Ross, for example, urges that the invisibility of the phoenix is sufficiently accounted for by the natural desire of a unique animal to keep out of harm's way.

indeed, having exhausted natural history, he plunges with intense delight into questions which bear the same relation to genuine antiquarianism that his phoenixes and salamanders bear to scientific inquiry : whether the sun was created in Libra ; what was the season of the year in Paradise ; whether the forbidden fruit was an apple ; whether Methuselah was the longest-lived of all men (a main argument on the other side being that Adam was created at the perfect age of man, which in those days was fifty or sixty, and thus had a right to add sixty to his natural years) ; what was the nature of St. John the Baptist's camel's-hair garment ; what were the secret motives of the builders of the tower of Babel ; whether the three kings really lived at Cologne—these and many other profound inquiries are detailed with all imaginable gravity, and the interest of the inquirer is not the less because he generally comes to the satisfactory and sensible conclusion that we cannot possibly know anything whatever about it.

The *Inquiry into Vulgar Errors* was published in 1646, and Sir Thomas's next publication appeared in 1658. The dates are curiously significant. Whilst all England was in the throes of the first civil war, Sir Thomas had been calmly finishing his catalogue of intellectual oddities. This book was published soon after the crushing victory of Naseby. King, parliament, and army, illustrating a very different kind of vulgar error, continued to fight out their quarrel to the death. Whilst Milton, whose genius was in some way most nearly akin to his own, was raising his voice in favor of the liberty of the press, good Sir Thomas was meditating profoundly on quincunxes. Milton hurled fierce attacks at Salmasius, and meanwhile Sir Thomas, in his quiet country town, was discoursing on "certain sepulchral urns lately found in Norfolk." In the year of Cromwell's death, the result of his labors appeared in a volume containing *The Garden of Cyrus* and the *Hydriotaphia*.

The first of these essays deserves notice as the book in which Sir Thomas has most unreservedly laid the reins upon the neck of his fancy. Borne by his strange hobby, he soared away from the troubles that raged in this sublunar sphere. He ransacks heaven and earth, he turns over all his stores of botanical knowledge, he searches all sacred and profane literature

to discover anything that is in the form of an X, or that reminds him in any way of the number 5. It is needless to say that his labors are rewarded by an ample harvest. He seems, as it were, to have quincunx on the brain. From the garden of Cyrus, where the trees were arranged in this order, he rambles through the universe, stumbling over quincunxes at every step. To take, for example, his final, and, of course, his fifth chapter, we find him modestly disavowing an "inexcusable Pythagorism," and yet unable to refrain from telling us that five was anciently called the number of justice; that it was also called the divisive number; that most flowers have five leaves; that feet have five toes; that the cone has a "quintuple division"; that there were five wise and five foolish virgins; that the "most generative animals" were created on the fifth day; that the cabalists discovered strange meanings in the number five; that there were five golden mice; that five thousand persons were fed with five barley-loaves; that the ancients mixed five parts of water with wine; that plays have five acts; that starfish have five points; and that if any one inquire into the causes of this strange repetition, "he shall not pass his hours in vulgar speculations." We, however, must decline the task, and will content ourselves with a few characteristic phrases from his peroration. "The quincunx of heaven," he says, referring to the *Hyades*, "runs low, and 'tis time to close the five parts of knowledge. We are unwilling to spin out our awaking thoughts into the phantasms of sleep, which often continueth precogitations, making cables of cobwebs, and wildernesses of handsome groves. . . . Night, which Pagan theology could make the daughter of chaos, affords no advantage to the description of order; although no lower than that mass can we derive its genealogy. All things began in order, so shall they end, and so shall they begin again; according to the admirer of order and mystical mathematics of the City of Heaven. Although Somnus, in Homer, be sent to rouse up Agamemnon, I find no such effects in these drowsy approaches of night. To keep our eyes open longer were but to act with our Antipodes. The huntsmen are up in America, and they are already past their first sleep in Persia. But who can be drowsy at that hour, which

roused us from everlasting sleep? Or have slumbering thoughts at that hour, when sleep itself must end, and, as some conjecture, all shall awake again?"

"Think you," asks Coleridge, commenting upon this passage, "that there ever was such a reason given for going to bed at midnight, to-wit, that if we did not, we should be acting the part of our antipodes?" In truth, Sir Thomas finishes his most whimsical work whimsically enough. The passage gives no bad specimen of the quaint and humorous eloquence in which he most delights—snatching fine thought from sheer absurdities, and putting the homeliest truth into a dress of amusing oddity. It may remind us that it is time to leave the queer freaks of fancy, which occupy so large a part of his writings, and to endeavor to justify shortly the language of one of the acutest of recent critics,\* who calls his "our most imaginative mind since Shakspeare." Everywhere, indeed, his imaginative writing is, if we may so speak, shot with his peculiar humor. It is difficult to select any eloquent passage which does not show this characteristic interweaving of the two elements. Throw the light from one side, and it shows nothing but quaint conceits; from the other, and we have a rich glow of poetic coloring. His humor and his melancholy are inextricably blended; and his melancholy itself is described to a nicety in the words of Jaques:—"It is a melancholy of his own, compounded of many simples, extracted from many objects, and, indeed, the sundry contemplation of his travels, in which his often rumination wraps him in a most humorous sadness." That most marvellous Jaques, indeed, is rather too much of a cynic, and shows none of the religious sentiment of Sir Thomas Browne; but if they could have talked together in the forest, poor Jaques would have excited a far closer sympathy than he receives from his very unappreciative companions. The books in which this "humorous sadness" finds the fullest expression are the *Religio Medici* and the *Hydriotaphia*. The first apparently resulted from the "sundry contemplation of his travels," and is written throughout in his characteristic strain of thought. From his travels he had learnt the best lesson of

\* MR. LOWELL, in "Shakspeare Once More,"  
Among my Books.

a lofty toleration. The furious controversies of that age, in which the stake, the prison, and the pillory were the popular theological arguments, produced a characteristic effect on his sympathies. He did not give in to the established belief, like his kindly-natured contemporary Fuller, who remarks, in a book published about the same time with the *Religio Medici*, that even "the mildest authors" agree in the propriety of putting certain heretics to death. Nor, on the other hand, does he share the glowing indignation which prompted the great protests of Chillingworth and Taylor against the cruelties practised in the name of religion. Browne has a method of his own in view of such questions. He shrinks from the hard, practical world into spiritual meditation. He regards all opinions less as a philosopher than as a poet. He asks, not whether a dogma is true, but whether it is beautiful or quaint. If his imagination or his fancy can take pleasure in contemplating it, he is not curious to investigate its scientific accuracy. And therefore he catches the poetical side of creeds which differ from his own, and cannot even understand why anybody should grow savage over their shortcomings. He never could be angry with a man's judgment "for not agreeing with me in that from which, perhaps, within a few days I should dissent myself." Travelling in this spirit through countries where the old faith still prevailed, he felt a lively sympathy for the Catholic modes of worship. Holy water and crucifixes do not offend him. He is willing to enter the churches and to pray with the worshippers of other persuasions. He is naturally inclined, he says, "to that which misguided zeal terms superstition," and would show his respect rather than his unbelief. In an eloquent passage, which might teach a lesson to some modern tourists, he remarks:—"At the sight of a cross or crucifix I can dispense with my hat, but scarce with the thought and memory of my Saviour. I cannot laugh at, but rather pity, the fruitless journeys of pilgrims, or condemn the miserable condition of friars; for though misplaced in circumstances, there is something in it of devotion. I could never hear the Ave Mary bell without an elevation; or think it a sufficient warrant, because they erred in one circumstance, for me to err in all—that is, in silence and dumb contempt.

Whilst, therefore, they directed their devotions to her, I offered mine to God, and rectified the errors of their prayers by rightly ordering my own. At a solemn procession I have wept abundantly, while my consorts, blind with opposition and prejudice, have fallen into an excess of laughter and scorn."

Very characteristic, from this point of view, are the heresies into which he confesses that he has sometimes fallen. Setting aside one purely fantastical theory, they all imply a desire for toleration even in the next world. He doubted whether the damned would not ultimately be released from torture. He felt great difficulty in giving up prayers for the dead, and thought that to be the object of such prayers, was "a good way to be remembered by posterity, and far more noble than a history." These heresies, he says, as he never tried to propagate them, or to dispute over them "without additions of new fuel, went out insensibly of themselves." Yet he still retained, in spite of its supposed heterodoxy, some hope for the fate of virtuous heathens. "Amongst so many subdivisions of hell," he says, "there might have been one limbo left for these." With a most characteristic turn, he softens the horror of the reflection, by giving it an almost humorous aspect. "What a strange vision will it be," he exclaims, "to see their poetical fictions converted into verities, and their imagined and fancied furies into real devils! How strange to them will sound the history of Adam, when they shall suffer for him they never heard of!"

The words may remind us of an often quoted passage from Tertullian; but the Father seems to gloat over the appalling doctrines, from which the philosophical humorist shrinks, even though their very horror has a certain strange fascination for his fancy. Heresies such as these will not be harshly condemned at the present day. From others of a different kind, Sir Thomas is shielded by his natural love of the marvellous. He loves to abandon his thoughts to mysterious contemplations; he even considers it a subject for complaint, that there are "not impossibilities enough in religion for an active faith." "I love," he says, "to lose myself in a mystery; to pursue my reason to an *O altitudo!* 'Tis my solitary recreation to pose my apprehension with those involved

enigmas and riddles of the Trinity, incarnation, and resurrection. I can answer all the objections of Satan and my rebellious reason with that odd resolution I learnt of Tertullian, *certum est quia impossibile est.*" He rejoices that he was not an Israelite at the passage of the Red Sea, or an early Christian in the days of miracles; for then his faith, supported by his senses, would have had less merit. He loves to puzzle and confound his understanding with the thoughts that pass the limits of our intellectual powers: he rejoices in contemplating eternity, because nobody can "speak of it without a solemnism," and to plunge his imagination into the abysses of the infinite. "When I cannot satisfy my reason," he says, "I love to recreate my fancy." He recreates it by soaring into the regions where the most daring metaphysical logic breaks down beneath us, and delights in exposing his reason to the rude test of believing both sides of a contradiction. Here, as everywhere, the strangest freaks of fancy intrude themselves into his sublime contemplations. A mystic, when abasing reason in the presence of faith, may lose sight of earthly objects in the splendor of the beatific vision. But Sir Thomas, even when he enters the holiest shrine, never quite loses his grasp of the grotesque. Wonder, whether produced by the sublime or the simply curious, has equal attraction for him. His mind is distracted between the loftiest mysteries of Christianity, and the strangest conceits of Talmudists or schoolmen. Thus, for example, whilst eloquently descanting on the submissiveness of his reason, he informs us (obviously claiming credit for the sacrifice of his curiosity) that he can read of the raising of Lazarus, and yet refrain from raising a "law case, whether his heir might lawfully detain his inheritance bequeathed unto him by his death, and he, though restored to life, have no plea or title unto his former possessions." Or we might take the inverse transition, from the absurd to the sublime, in his meditations upon hell. He begins by inquiring whether the everlasting fire is the same with that of our earth. "Some of our chymicks," it appears, "facetiously affirm that, at the last fire, all shall be crystallized and reverberated into glass," but, after playing for some time with this and other strange fancies, he says in a loftier strain, though

still with his old touch of humor—"Men speak too popularly who place it in those flaming mountains, which, to grosser apprehensions, represent hell. The hearts of men is the place the devils dwell in. I feel sometimes a hell within myself; Lucifer keeps his courts in my breast; Legion is revived in me. There was more than one hell in Magdalene, when there were seven devils; for every devil is a hell unto himself; he holds enough of torture in his own *ubi*, and needs not the misery of circumference to afflict him; and thus a distracted conscience here is a shadow or introduction into hell hereafter."

Sir Thomas's witticisms are like the grotesque carvings in a Gothic cathedral. It is plain that in his mind they have not the slightest tinge of conscious irreverence. They are simply his natural mode of expression; forbid him to be humorous and you might as well forbid him to speak at all. If the severity of our modern taste is shocked at an intermixture, which seemed natural enough to his contemporaries, we may find an unconscious apology in a singularly fine passage of the *Religio Medici*. Justifying his love of church music, he says,—"Even that vulgar and tavern music, which makes one man merry, another mad, strikes in me a deep fit of devotion, and a profound contemplation of the first composer." That power of extracting deep devotion from "vulgar tavern music" is the great secret of Browne's eloquence. It is not wonderful, perhaps, that, with our associations, the performance seems of questionable taste; and that some strains of tavern music mix unpleasantly in the grander harmonies which they suggest. Few people find their religious emotions stimulated by the performance of a nigger melody, and they have some difficulty in keeping pace with a mind which springs in happy unconsciousness, or rather in keen enjoyment, of the contrast from the queer or commonplace to the most exalted objects of human thought.

One other peculiarity shows itself chiefly in the last pages of the *Religio Medici*. His worthy commentators have labored to defend Sir Thomas from the charge of vanity. He expatiates upon his universal charity; upon his inability to regard even vice as a fitting object for satire; upon his warm affection to his friend, whom he already loves better than himself, and

whom, yet in a few months, he will regard with a love which will make his present feelings seem indifference; upon his absolute want of avarice or any kind of meanness; and, which certainly seems a little odd in the midst of these self-laudations, upon his freedom from the "first and father sin, not only of man but of the devil, pride." Good Dr. Watts was shocked at this "arrogant temerity," and Dr. Johnson appears rather to concur in the charge. And certainly, if we are to interpret his language in a matter-of-fact spirit, it must be admitted that a gentleman who openly claims for himself the virtues of charity, generosity, courage, and modesty, might be not unfairly accused of vanity. To no one, as we have already remarked, is such a matter-of-fact criticism less applicable. If a humorist was to be denied the right of saying with a serious face what he does not quite think, we should make strange work of some of the most charming books in the world. The Sir Thomas Browne of the *Religio Medici* is by no means to be identified with the every-day flesh-and-blood physician of Norwich. He is the ideal and glorified Sir Thomas, and represents rather what ought to have been than what was. We all have such doubles who visit us in our day-dreams, and sometimes cheat us into the belief that they are our real selves, but most of us luckily hide the very existence of such phantoms; for few of us, indeed, could make them agreeable to our neighbors. And yet the apology is scarcely needed. Bating some few touches, Sir Thomas seems to have claimed little that he did not really possess. And if he was a little vain, why should we be angry? Vanity is only offensive when it is sullen or exacting. When it merely amounts to an unaffected pleasure in dwelling on the peculiarities of a man's own character, it is rather an agreeable literary ingredient. Sir Thomas defines his point of view with his usual felicity. "The world that I regard," he says in the spirit of the imprisoned Richard II., "is myself: it is the microcosm of my own frame that I cast mine eye on; for the other, I use it but like my globe, and turn it round sometimes for my recreation." That whimsical inversion of the natural order is the key to the *Religio Medici*. We, for the nonce, are to regard Sir Thomas Browne as a world, and to study the marvels of

his microcosm instead of the outside wonders. And, to say the truth, it is a good and kindly world—a world full of the strangest combinations, where even the most sacred are allied with the oddest objects. Yet his imagination everywhere diffuses a solemn light such as that which falls through painted windows, and which somehow harmonizes the whole quaint assemblage of images. The sacred is made more interesting instead of being degraded by its association with the quaint; and on the whole, after a stay in this microcosm, we feel better, calmer, more tolerant, and a good deal more amused than when we entered it.

Passing from the portrait to the original, we may recognize, or fancy that we recognize, the same general features. Sir Thomas assures us that his life, up to the period of the *Religio Medici*, was a "miracle of thirty years, which to relate were not a history, but a piece of poetry, and would sound to common ears like a fable." Johnson, with his usual sense, observes that it is rather difficult to detect the miraculous element in any part of the story open to our observation. "Surely," he says, "a man may visit France and Italy, reside at Montpellier and Padua, and at last take his degree at Leyden, without anything miraculous." And although Southey endeavors to maintain that the miracle consisted in Browne's preservation from infidelity, it must be admitted that to the ordinary mind that result seems explicable by natural causes. We must be content with Johnson's explanation, that, in some sense, "all life is miraculous;" and, in short, that the strangeness consists rather in Browne's view of his own history, than in any unusual phenomena. Certainly, no man seems on the whole to have slipped down the stream of life more smoothly. After his travels he settled quietly at Norwich, and there passed forty-five years of scarcely interrupted prosperity. In the *Religio Medici* he indulges in some disparaging remarks upon marriage. "The whole world," he says, "was made for man; but the twelfth part of man for woman. Man is the whole world and the breath of God; woman the rib and crooked part of man." He wishes, after the fashion of Montaigne, that we might grow like the trees, and avoid this foolish and trivial ceremony; and, therefore—for such inferences are perfectly le-

gitimate in the history of a humorist—he married a lady, of whom it is said that she was so perfect that “they seemed to come together by a kind of natural magnetism,” had ten children, and lived very happily ever afterwards. It is not difficult, from the fragmentary notices that have been left to us, to put together some picture of his personal appearance. He was a man of dignified appearance, with a striking resemblance, as Southey has remarked, to Charles I., “always cheerful, but never merry,” given to unseasonable blushing, little inclined to talk, but strikingly original when once launched in conversation; sedate in his dress, and obeying some queer medical crotchets as to its proper arrangement; always at work in the intervals of his “drudging practice;” and generally a sober and dignified physician. From some letters which have been preserved we catch a view of his social demeanor. He was evidently an affectionate and liberal father, with good old orthodox views of the wide extent of the paternal prerogative. One of his sons was a promising naval officer, and sends home from beyond the seas accounts of such curiosities as were likely to please the insatiable curiosity of his parent. In his answers, the good Sir Thomas quotes Aristotle’s definition of fortitude for the benefit of his gallant lieutenant, and argues elaborately to dissuade him from a practice which he believes to prevail in “the king’s shippes, when, in desperate cases, they blow up the same.” He proves by most excellent reasons, and by the authority of Plutarch, that such self-immolation is an unnecessary strain of gallantry; yet somehow we feel rather glad that Sir Thomas could not be a witness to the reception of this sensible, but, perhaps, rather superfluous advice, in the mess-room of the *Marie Rose*. It is more pleasant to observe the carefulness with which he has treasured up and repeats all the compliments to the lieutenant’s valor and wisdom which have reached him from trustworthy sources. This son appears to have died at a comparatively early age; but with the elder son, Edward—who, like his father, travelled in various parts of Europe, and then became a distinguished physician—he maintained a long correspondence, full of those curious details in which his soul delighted. His son, for example, writes from Prague that “in the mines at Brunswick is reported to

be a spirit; and another at the tin mine at Stackenwald, in the shape of a monke, which strikes the miners, playeth on the bagpipe, and many such tricks.” They correspond, however, on more legitimate inquiries, and especially on the points to be noticed in the son’s medical lectures. Sir Thomas takes a keen interest in the fate of an unlucky “oestrige” which found its way to London in 1681, and was doomed to illustrate some of the vulgar errors. The poor bird was induced to swallow a piece of iron weighing two and a half ounces, which, strange to say, it could not digest. It soon afterwards died “of a soden,” whether from the severity of the weather or from the peculiar nature of its diet.

The one blot on his character is that he gave evidence in the well-known trial of the witches before Sir Matthew Hale in 1664, and thereby contributed to one of the latest instances of witch-murder in England. All that can be said is that his belief was a little too sincere, and that a doctrine pardonable enough in his speculative moods, should have startled him when exemplified in actual flesh and blood.

The great glory of his life was his receiving the honor of knighthood from Charles II. in 1671. Dr. Johnson is eloquent on the skill of his favorite monarch in discovering excellence, and his virtue in rewarding it, though, as a twinge of conscience compels him to add, “with such honorary distinctions at least as cost him nothing.” The good doctor died in 1682, in the 77th year of his age, and met his end, as we are assured, in the spirit of his own writings. “There is,” he says, “but one comfort left, that, though it be in the power of the weakest arm to take away life, it is not in the strongest to deprive us of death.” Or, to take another passage, for his meditations were often amongst the tombs, he says, with his usual quaint and eloquent melancholy, “When I take a full view and circle of myself, without this reasonable moderator and equal piece of justice, death, I do conceive myself the miserablest person extant. Were there not another life that I hope for, all the vanities of this world should not entreat a moment’s breath from me. Could the devil work my belief to imagine I could never die, I could not outlive that very thought. I have so

abject a conceit of this common way of existence, this retaining to the sun and elements, I cannot think this to be a man, or to have according to the dignity of humanity. In expectation of a better, I can with patience embrace this life, yet, in my best meditations, do often defy death."

The man who wrote thus, and lived and died in the spirit of his words, was, by certain of our matter-of-fact friends, called an atheist. Why, it seems impossible to conjecture, unless toleration is considered to be an indication of unbelief. No man, at any rate, has breathed a more exalted religious sentiment into his writings, and it is impossible to study them without at once smiling at him and loving him.

A few remarks on his peculiar style may be added. Johnson, though generally appreciative, calls him "obscure," "rugged," and "pedantic." The last epithet is obviously more or less deserved. He has the propensity, common to the learned men of his day, to coin amazing Latinisms. Here, for example, are a few taken pretty much at random from his posthumous work, the *Christian Morals*:—"assuefaction," "minorates," "exantlation," "quodlibetically," "salvifically," "longeuous," "exuperances." He says elsewhere that "omnentity informed nullity into an essence" at the creation; and in discussing the interesting question of the mode of Haman's death, defines the obscure term "hanging" by the circumlocution, "illaqueation or pendulous suffocation." But setting aside such freaks, which belong nearly as much to his period as to his individual taste, he can hardly be called an obscure, and still less, a "rugged" writer. There are occasional faults of construction, it is true, which would naturally shock an Addisonian taste, and blemishes which would have been removed by a more careful polish. But he is generally intelligible without an effort; and "ruggedness" is a decidedly infelicitous epithet. His sentences move, it may be, with rather too elaborate a statelynesse; they are crammed with the remote allusions that are constantly thronging into his mind, and have a certain sententious and epigrammatic turn; but they are full of a subtle and stately melody, bespeaking a fine musical ear. They have not the impetuous energy of a true rhetorician; they do not expand into the diffuse eloquence of Jeremy Taylor, nor are they animated by the indignant passion of Mil-

ton; but they are the grave, quiet utterances of a meditative mind, and their form would be more suitable for a lecture-room than for a pulpit or the floor of a senate, and most suitable for a closet. He must be read in a corresponding spirit; one must stop often to appreciate the flavor of a quaint allusion, and lay down the book at intervals to follow out some sharply diverging line of thought. So read, in the quiet of a retired study, or beneath the dusty shelves of some ancient library—and books, to be thoroughly enjoyed, require appropriate scenery as well as appropriate moods—no congenial student will find fault with Sir Thomas's stately periods. Rather he will admit that the form is in admirable harmony with the matter; and that the sentences march to a most appropriate air. As a general description, it may perhaps be said that they are just too diffuse and too far-fetched to be aphorisms. The *Christian Morals*, for example, consists of a series of maxims, which fail for want of a little concentration. They are to the genuine aphorism what a nebulous system is to a sun. Every now and then we find some striking and genuine aphorism, as this, for example, which almost reminds us in language and policy of a modern French epigram—"Natural parts and good judgments rule the world; states are not governed by ergotisms;" but as a rule, the thought has not quite enough specific gravity. He wants that concentrated force of mind which gives immortality to Bacon's essays.

But we have perhaps dwelt long enough upon Sir Thomas's peculiar qualities of style. Whatever they may be, he must certainly be ranked amongst the great masters of our language. If some shade of oblivion has passed over him, as we have drifted further from the order of thought in which he most delighted, the result is not surprising. Immortality, or, indeed, life beyond a couple of centuries, is given to few literary artists. If we are disposed to complain, Sir Thomas shall himself supply the answer, in a passage from the *Hydriotaphia*, which, though described by Hallam as the best written of his treatises, seems to be scarcely so characteristic as the *Religio Medici*. It contains, however, many eloquent passages, and here are some of his reflections on posthumous fame. The end of the world, he says, is approaching, and

"Charles V. can never hope to live within two Methuselahs of Hector." "And, therefore, useless inquietude for the diuturnity of our memories with present considerations seems a vanity out of date, and a superannuated piece of folly. We cannot hope to live as long in our names, as some have done in their persons. One face of Janus holds no proportion to the other. 'Tis too late to be ambitious. The great mutations of the world are acted, or time may be too short for our designs. To extend our memories by monuments, whose death we daily pray for, and whose duration we cannot hope

without injury to our expectations in the advent of the last day, were a contradiction to our beliefs. We, whose generations are ordained in this setting part of time, are providentially taken off from such imaginations; and being necessitated to eye the remaining particle of futurity, are naturally constituted into thoughts of the next world, and cannot excusably decline the consideration of that duration, which maketh pyramids pillars of snow, and all that's past a moment."

The argument is worthy of Dr. Cuming; the language and the sentiment, of Milton.

Macmillan's Magazine.

#### DARWINISM AND RELIGION.

At last Mr. Darwin's long-promised work on "Man" is given to the world, and there is no longer any question as to the views which he entertains concerning the lineal descent of our race from the lower animals. To some, who have always "hoped against hope," from the previous silence maintained on this subject in successive editions of the "Origin of Species," this may come as a startling blow: but to the majority it will be nothing more than a direct statement of a conclusion which followed necessarily from the Darwinian theory. If the evolution hypothesis is to be received at all as regards the organic creation, there is no possibility of stopping short when we come to man, at least so far as his bodily structure is concerned. Professor Huxley, as long ago as 1863, pointed out that "man, in all parts of his organization, differs less from the higher apes than these do from the lower members of the same group;" and the mass of overwhelming evidence brought forward in the present work to prove our intimate connection with the lower animals does but strengthen a conviction, slowly and reluctantly yielded to by all who accept any phase, whether Darwinian or otherwise, of the theory of evolution.

If Mr. Darwin, therefore, had confined his speculations to the bodily structure of man, his new work, though strengthening his previous theory by many new facts and arguments, would not have enunciated any novel or startling principle. But he had already hinted at another subject of inquiry when in the last edition of the "Origin"

(p. 577) he said, "In the distant future I see open fields for far more important researches. Psychology will be based on a new foundation, that of the necessary acquirement of each mental power and capacity by gradation."

Into these fields of speculation he enters boldly in the present work, and arrives at the conclusion that the mental powers of man, though so different in *degree* to those of the higher animals, are yet the same in kind; while in the social instincts existing so strongly in many animals, he finds a basis for the moral sense or conscience of the human race. "The following proposition," he says, "seems to me in a high degree probable—namely, that any animal whatever, endowed with well-marked social instincts, would inevitably acquire a moral sense or conscience, as soon as its intellectual powers had become as well developed, or nearly as well developed, as in man." For, firstly, the social instincts lead an animal to take pleasure in the society of its fellows, to feel a certain amount of sympathy with them, and to perform various services for them. But these feelings and services are by no means extended to all individuals of the same species, only to those of the same association. Secondly—As soon as the mental faculties had become highly developed, images of all past actions and motives would be incessantly passing through the brain of each individual, and that feeling of dissatisfaction which invariably results from any unsatisfied instinct would arise as often as it was perceived

that the ever-present social instinct had yielded to some other instinct at the time stronger, such as hunger, or the desire of vengeance, but less enduring in its nature, and not leaving behind a very vivid impression. Thirdly—After the power of language had been acquired, and the wishes of any small community could be distinctly expressed, the impulse to act for the good of the community would be strengthened and directed by public opinion, the power of which rests on instinctive sympathy. Lastly, habit in each individual would strengthen the social instincts and impulses, as it does all other instincts. The social instincts themselves Mr. Darwin considers as probably an extension of the parental and filial affections, and on the origin of these last he says it "is hopeless to speculate, though we may infer that they have been to a large extent gained through natural selection."

This short summary, though extremely inadequate to express even the leading features of the theory as traced out by Mr. Darwin, suffices to show that he derives not only our bodily but also our mental and moral nature by development from the lower animals. The difference, he acknowledges, between us and them "is enormous;" nor is there the slightest tendency in any part of his work to detract from all that is noble in our nature. He takes for his text the soul-stirring words of Kant, and elevates the unselfish virtues to the highest rank to which moralists have ever assigned them. Yet many who would concede without hesitation the evolutionary origin of their bodily frame, shrink with great pain from such a derivation of their mental and moral nature. They fear that if the noble gift of conscience can be traced back in all its gradations to the humbler instincts, the human race will become the victims of a gross Materialism, and that all communion with God and all hope of immortality will be blotted out of our existence.

I believe that this fear, if it be founded upon the theory of the moral sense, as set forth in the "Descent of Man," is a groundless one; and the object of the present essay is to attempt to show—

Firstly: That the nobility of our conscience as a gift from God, and our power of communion with Him, are in no way impugned by this theory.

Secondly: That our hope of immortality

stands on precisely the same basis on the hypothesis of evolution as on that of separate creation.

Lastly: That Mr. Darwin, if his theory be even approximately true, has given a new impulse to the Utilitarian philosophy, in enunciating a proposition by which, as he says, "the reproach of laying the foundation of the most noble part of our nature in the base principle of selfishness is removed."

The fear that our conscience, if proved to have been developed by natural laws, will cease to be to us the voice of God, arises, I believe, either from our thinking too meanly of the laws involved, or from our endeavoring to separate them from their one great Source, and so to remove the necessity of an overruling Creator from the theory of the universe. Yet the truth is that those laws which we have to call to our aid for the supposed evolution of the moral sense, are the very highest which our capacities enable us to discern. The foundation of our conscience is made to rest upon the purest of instincts—that of parental and filial affection; while the powers through which it has been developed—intelligence, reason, memory (and the consequent power of reflection), language, imagination, and self-consciousness—all arise out of a network of laws so infinite in their complexity, so immeasurable in their grandeur, that, after all the utmost efforts of science, we still stand like the ignorant savage in presence of the thunderstorm, as he bows his head and exclaims, "It is the voice of a mighty God."

No one can appreciate our present incapacity as regards these points more fully than Mr. Darwin himself. He not only acknowledged from the first that the dawn of life was entirely beyond the scope of his speculations, and that "our ignorance of the laws of variation is profound;" but in the present work he recognizes at every step the narrow limits of our knowledge. "In what manner," he says, "the mental powers were first developed in the lower organisms, is as hopeless an inquiry as how life first originated. These are problems for the distant future, if they are ever to be solved by man. . . . On the origin of the parental and filial affections," he also says, "it is hopeless to speculate." And again—"We cannot

decide at what age the new-born infant becomes self-conscious, or capable of reflecting on its own existence, neither can we decide this question in regard to the ascending organic scale." These and numberless other passages which might be quoted, serve to show how, in a true spirit of philosophy, he affirms constantly the still hidden and higher laws of our being.

But even supposing for a moment that these sentences might bear the interpretation that the higher laws are only *as yet* unknown to us; even if the more advanced intelligence of man should one day discover the laws of mind, and we should at last arrive at an "equivalent of consciousness"—shall we, therefore, drive out God, or make our conscience less a gift from him? If Paley's man, who found the imaginary self-reproducing watch, could by inductive research have traced back the mode of its formation until he was enabled to make its counterpart, he would still need the hypothesis of a designing mind behind the point he had reached: for he would need a creator of those Laws by obeying which alone he could produce the mechanism. There is a fallacy, I believe, involved in the supposition that "evolution by law," whether organic or inorganic, can dispense with the necessity of a present overruling Creator. The watch, when it leaves the hand of the man who made it, is indeed separated from its immediate cause—*i. e.* the man working through laws; but it still remains governed by its more general cause—*i. e.* the laws by means of which its formation was rendered possible; which laws exist independently of the man. But when we speak of the laws which govern our universe we cannot regard them as separate entities independent of God, as watch-laws are of ourselves; for then they would depend upon some first cause other than God. We must look upon them as emanating from Him, and non-existent without Him. Here we find ourselves face to face with a deep mystery. "The consciousness of an Inscrutable Power," says Mr. H. Spencer, "manifested to us through all phenomena, has been growing ever clearer, and must eventually be freed from its imperfections. The certainty that on the one hand such a power exists, while on the other its nature tran-

scends intuition and is beyond imagination, is the certainty towards which intelligence has from the first been progressing."<sup>\*</sup> On no hypothesis founded on the facts of nature can we shut out the ever-present action of the Infinite and all-perfect First Cause, nor shake the belief that, whether through a process of creation or the apparently less direct one of evolution, "in Him we live, and move, and have our being."

"But how," the intuitionist inquires, "can my mind and conscience, if a mere development of the instincts of unconscious animals, hold communion, real personal communion, with this Inscrutable Power, whom you place at an infinite distance from intuition and even imagination?" If the theory rendered such communion impossible or inconceivable, then indeed it must either be false, or cause the destruction of our highest and noblest aspirations. But surely this difficulty arises not out of the theory itself, but from our want of power to adapt our previous conceptions to the new form in which the natural facts are presented to us. If we grant the evolution of animal forms at all, we must allow that vast powers of perception and sympathy have been produced in the dog which do not exist in the jelly-fish. Yet we do not consider these powers as a special spiritual gift to the higher animal. So also with the power of communion. If a medusa be taken from the sea-shore and placed in a room inhabited by man, what will it comprehend of his movements, his actions, or his motives? How far will it be conscious of his presence? except when he touches it, or casts a shadow upon it, when it will shrink as it would from contact with any inanimate body. We feel at once that it would be absurd to say that the jelly-fish was conscious of the man as a man. But as we rise in the scale of life we can see that powers of perception begin to be developed, so that a toad or a fish is not only instantly conscious of the presence of man, but will acquire an instinctive perception of the cruelty or kindness which it may expect at his hand. In the dog this is far more fully developed. For who will say that a dog does not share the uneasiness or expressed joy of his master—does not look for benefits at his hand,

\* Huxley on Descartes' Lay Sermons, p. 372.

\* First Principles, p. 108.

fly at any one who attacks him, feel fear when he has disobeyed him, remain faithful to him often for long years, watch by his sick-bed, and in many instances pine away and refuse to be comforted when separated from him by death? Surely, in so far as the powers of a dog correspond and attain to those of a human being, he does hold intercommunion with him. Why then should we find any difficulty in the fact that man—whose powers so infinitely transcend those of the dog, whom we know to have acquired the faculty of forming abstract ideas, so that he can conceive of space, time, and infinity; possessing also the highly developed moral ideas of truth, self-sacrifice, and duty—should be able to hold communion with that Intelligence who, among all His infinite and often inscrutable attributes, must possess those from which originated the laws of our being?

It matters not how our higher faculties have been acquired—whether the germs of them exist in the lower animals, or whether the higher laws producing them only began to act at a later stage of development. So surely as we believe that our conception of the Deity, and our capability of discerning Him, though but faint and weak, yet infinitely transcend any like powers in a poor ignorant savage, so may we hold fast without wavering to that power, even though we could prove that it has been gradually developed from the instincts of the brute creation. And as we can make a dog understand our wishes, just so far as his capacity extends, there is nothing in the theory of evolution to cause us to doubt that the *higher* and *nobler* minds amongst us do, through the working of natural laws, receive more knowledge of a higher Power than the mass of mankind. This we call "Revelation," receiving it through poet, philosopher, or prophet, just so far as their mental and moral nature surpasses our own.

The bearing of the theory of evolution upon a future individual existence is more difficult to discuss, because the hope of immortality is acknowledged by all to be more a conviction than a certainty. "I do not mean to affirm," says Bishop Butler, "that there is the same degree of conviction that our living powers will continue after death, as there is that our substances

will." Those views of the present moral government of the world which lead us not only to long and hope, but even to feel assured, that our life's history does not end in the grave, are far too comprehensive and complicated to be dealt with here. My object is merely to attempt to show that these hopes are no less consistent with the theory of evolution than with that of creation.

We have seen that the derivation of our higher faculties from animals is not necessarily any bar to revelation,\* and therefore those who have always built their faith in immortality upon this foundation have no need to fear that it will be taken away from them. No one ever contended that the revelation of God to man was complete, but only such as his mental powers can receive; therefore, in so far as we can have communion with God, there is nothing in this theory to prevent our receiving from Him our knowledge and hope of eternity. But they who, deriving their arguments from purely natural religion, base their hope of immortality upon the supposed essential difference between man and animals, feel as though the very ground of their faith were destroyed by the theory of a common origin. Yet, as Mr. Darwin truly says, "few people feel any anxiety from the impossibility of determining at what precise period in the development of the individual, from the first trace of the minute germinal vesicle to the child, either before or after birth, man becomes an immortal being; and there is no greater cause for anxiety, because the period in the gradually ascending scale cannot possibly be determined."†

They must indeed limit the power of an omnipotent Creator who do not believe it to be just as possible for Him to create a soul through gradual development from the capacities of the lower animals, as to create a body, with all its wondrous mechanism, from a germ-cell which does not possess a trace of organization. Indeed, so far as analogy can be trusted, this mode of development would seem to be most consistent with the general working of the laws known to us.

\* By revelation I do not mean any special scheme of theology, but, as just explained, the communion of God with man.

† Descent of Man, vol. ii. p. 395.

But I think we may go even farther than this ; and though I am fully aware of the solemnity and magnitude of the problem to be solved, and the danger there is of erring through extreme ignorance, yet I cannot resist offering a reflection suggested by Bishop Butler's pregnant essay upon a future life. His argument is founded upon the apparent indestructibility of life ; that as we know not at all upon what the existence of our living powers depends, neither can we urge with any probability that death, or the mere disintegration of the body, can be their destruction. Now, in spite of all the advances of science since the days of Butler, our ignorance as to the origin of life remains as complete as ever. Even if spontaneous generation could one day be established, we should then merely discover "the conditions under which matter assumes the properties which we call vital,"\*—the source of those properties would still remain unknown. And further, since life is acknowledged to be the cause and not the consequence of organization, the changes in, and development of, an organism would seem to be the consequence of various internal and external conditions acting upon that vitality by which alone the organism exists. Though these actions may be infinitely complex and reflex, and we may not be able to trace how far the organization and vitality mutually act and re-act upon each other, yet I conceive (and I cannot discover from writers on physiology that I am mistaken) that, in order to produce a change or development in the organism, the conditions acting upon it must produce some kind of change in the vitality which animates it.

Professor Tyndall, after enumerating all the physical phenomena which we can ever hope to discover connected with states of consciousness, adds, that if we were acquainted with all these, "we are as far as ever from the solution of the problem —How far are these physical processes connected with the facts of consciousness?" (Brit. Assoc. 1868). If, then, no amount of purely physical action can account for the production of consciousness, and since we have no reason to suppose that life in its lowest forms has this consciousness, does it not follow that the

internal vitality itself has been developed in ourselves into something higher, and susceptible to the action of more subtle influences, than it is in the jelly-fish? With this conclusion in our minds, let us now fall back upon the fact that this vitality, whatever its nature and origin, being the *cause* and not the consequence of organization, cannot be dependent upon the physical organism for its existence ; and have we not then an intimation that the mere destruction of the bodily powers cannot destroy the attributes which have been developed in that which we call spirit? Nor does this inference seem to be incompatible with the fact that the suspension of the bodily powers, by sleep or by mental disease, temporarily destroys consciousness ; for this merely indicates that the supposed development effected in the internal life can find expression only through the means of organization ; and we are so entirely ignorant of the conditions under which the vitality will be placed after separation from the body, that if we could prove the capability of consciousness, and the many faculties connected with it, to be latent in the spirit, the mere difficulty of expression would be a trivial objection.

This suggestion, which is so speculative as not to deserve the name of an argument, I offer, with much hesitation, as showing that the most strictly materialistic view of life, being obliged to start with an unknown force, cannot *disprove* a future individual existence ; and if the idea thus roughly stated could in any way be confirmed by those who are competent to judge, our highest aspirations would gain much probability, from our being able to assign a limit to the powers of mere material organization.

Be this as it may, the difficulties which have always surrounded this subject are neither increased nor diminished by the theory of evolution. It is true, that if our spirit be one of gradual development, and if we can trace the germs of so many of our faculties to the higher forms of the lower animals, they may be supposed to share with us the probabilities of immortality. But neither is this the outcome of evolution. Bishop Butler, holding the theory of creation, acknowledges that his arguments for the indestructibility of life are also applicable to the brute ; "and it is thought," he says, "an insuperable difficul-

\* Huxley, British Association, Address, Liverpool, 1870.

ty that they should be immortal, and by consequence capable of everlasting happiness." But he treats this objection as both invidious and weak, since we do not know: firstly, how far they may be capable of improvement in a future existence; nor secondly, whether animals in various stages of development may not be required by the economy of the universe. In fact, he concludes, "all difficulties as to the manner they are disposed of, are so apparently and wholly founded on our ignorance, that it is wonderful they should be insisted upon by any but such as are weak enough to think they are acquainted with the whole system 'of things."

Having now endeavored to remove any feelings of pain and distrust awakened by a hasty consideration of Mr. Darwin's theory of the evolution of the moral sense, it only remains to point out in what way I believe it to be an immense advance beyond the former theories of morals. In the first place, by approaching the subject from the side of natural history, it gives us the means of testing metaphysical arguments by the touchstone of physical facts; and in doing this Mr. Darwin seems to me to unite in a remarkable degree the rival claims of intuitive and utilitarian moralists.

The intuitive school have always insisted that the highest moral virtues could never be derived from mere utility, or from the principle of the "greatest happiness." Duty, they say, has a value of its own which could never have arisen from seeking our own happiness, or even the happiness of others merely as re-acting upon ourselves. Hence the intuitionist theory presupposes a feeling, a sense of right and wrong in our nature, "antecedent to, and independent of, experiences of utility." The derivative or utilitarian school, on the contrary, have maintained that we have no proof of such an intuitional sense; that actions are right in proportion as they tend to promote happiness, wrong as they tend to produce the reverse of happiness. But since they have never assigned any other reason for the desire to produce general happiness than this—that it first of all produces the happiness of the individual—they have never been able, in spite of the endeavors of their noblest advocates (especially Mr. John Stuart Mill), to purge entirely from their theory the spirit of calculation, the base

dross of selfishness, which they yet disclaim at every step.

Among the low and almost unconscious forms of animal life Mr. Darwin finds for them their true foundation-stone. The parental and filial instinct which in its highest forms presents us with the most noble, pure, and unselfish love, cannot even in its very lowest stage be said to have any trace of selfishness. Whether we call this instinct by the name of an intuition or not is clearly of no moment. If, as Mr. Darwin supposes, it has been gained (*i. e.* selected and intensified) by natural selection, it is because that community among which its faint germ first appeared flourished best in consequence of this unselfish impulse; and it thus became farther developed for the good, that is, the welfare or increased power of thriving, of that community. Here we have a reason for development, distinct on the one side from mere happiness or pleasure, and on the other from the base feeling of selfishness. It is a principle of utility in the strictest sense, but of utility founded upon an instinct of unknown origin as pure and devoid of self-seeking as the intuitionist can desire. Nor need we be uneasy because Mr. Darwin has shown that the opposite feeling of hatred, or the destruction of others, may also be developed under certain conditions, as in the worker-bees which kill their brother drones, and queen-bees which kill their daughter-queens; for if we have traced back duty to the necessary obedience of the instincts governed by natural laws, an action may become a sacred duty to the community in the case of the hive-bee which we know from fact not to be the law of our being.

But Mr. Darwin does more for the Utilitarian theory than merely removing from it the reproach of selfishness. He also affords a suggestive explanation of the sense of the terms "higher" and "lower" as applied to moral rules. This has been a great stumbling-block in the way of the derivative theory; since, if a man worked for the happiness of others only in order to increase his own, how could he rise to such a sense of what was due to others as to consider self-sacrifice, courage, and other social virtues—which in many cases never do produce his own individual happiness, at any rate in this life—as higher virtues than prudence, self-preservation,

and the like? But by Mr. Darwin's theory, the higher virtues are those which are founded on the social instincts, and relate to the welfare of others ; and these are considered higher because they have tended to the welfare of the community, and have thus been developed largely by natural selection, and afterwards by reason, public opinion, and sympathy. The lower relate chiefly to self, and have, though developed for the good of the individual, been checked by the social instincts ; till, as reason and experience increased, and their indirect influence upon the community became perceived, they would be increased by public opinion so far as they were beneficial to all.

Thus the good of the community becomes at last the end and aim of our moral nature. A man who has no sympathy, whose inordinate desires are strong, and his social instincts weak, is essentially a bad man ; yet another may also act with bad results, because, though his social instincts are strong, they are guided by a weak intellect. The cultivation of the intellect becomes therefore a supreme duty, while the development of love and sympathy is equally imperative. By the cul-

tivation of the first, we render vivid the memory of past actions ; by the exercise of the second, we render the memory of bad and selfish actions intolerable : and this is conscience, by which ultimately man becomes freed from the influence of the mere praise and blame of others, for his convictions become his guide and rule.

I have endeavored in this short essay to keep strictly and logically to facts, allowing but little scope to heart and imagination, that no preconceived prejudice might creep in. But if, calmly reasoning upon the evolution theory, we can establish that it neither shuts out God, degrades our conscience, checks our belief in the power of communion with the Divine mind as far as our faculties will permit, nor diminishes our hope of immortality, may we not then, even while allowing the theory as probable, give rein to the glorious conceptions and inspirations which flash upon us in happy moments of thought, and feel that all things are possible to us—that we have a never-ending future, and a hope of drawing nearer and nearer to the Almighty Being from whom we derive all and hope for all.

A. B.

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 Chambers's Journal.

## STATION LIFE IN NEW ZEALAND.

THE tables are turned. The "natives" are astonishing us. Instead of making themselves generally unpleasant and dangerous, giving rise to acrimonious debates in parliament, and to the quaking of maternal hearts, for fear of "active service," the Maori are taking to railroad making, telegraphy, public discussion, *without* the tomahawk accompaniment—in short, to civilization on the European pattern. If our experience of the results of high culture on this side of the world were not what it is—that all "progress" resolves itself into the power of making war in a bloody and relentless fashion, such as the dark ages did not dream of, and all "friendly relations" mean palavering among sovereigns up to the moment when each thinks he can hit the other the most hurtful blow, and "annex" his possessions with most profit and facility—we might look upon the accounts from New Zealand with unqualified pleasure. But we are growing sceptical about peace and

good-will, and we only "*hope the best*" in the case of the Maori. To be sure, there is no talk of a Great Exhibition at the antipodean Canterbury, so that public confidence has some little ground to rest upon. When the natives reach that pitch of sweetness and light, we, with our European experience, shall know they mean mischief. In the mean time there is a great deal of very pleasant occupation to be had. One may have much enjoyment of life in New Zealand, without being brought in contact with the delightfully clever and rapidly improving natives at all ; when, except that the climate is delicious, health one's normal condition, and the Queen's taxes unknown, one might be in the remoter parts of England and Scotland. Why that should be considered an advantage, it is difficult to understand, the "remoter parts" of any country being usually dull and dismal, in proportion to the life and activity of its great cities ; but it is supposed to be encouraging to intending

colonists. Such a place is Nelson, on the north coast of the middle island of New Zealand, when Lady Barker first landed in the colony, for which she is certainly a capital advocate, and, in the Artemus Ward sense, show-woman.\* Not the least indication that any one but the lordly Anglo-Saxon ever was lord of the soil, order and industry everywhere, and Swiss architecture applied to domestic purposes, which must be suggestive of Norwood, where it is not rational, whereas at Nelson, a gloriously sunny place, it is. Lady Barker says : "It is a lovely little town as I saw it that spring morning (October, 1865), with hills running down almost to the water's edge, and small wooden houses, with gables and verandas, half buried in creepers, built up the sides of the steep slopes. It was a true New Zealand day, still and bright, a delicious invigorating freshness in the air, without the least chill ; the sky of a more than Italian blue, the ranges of mountains in the distance covered with snow, and standing out sharp and clear against this lovely glowing heaven." From Nelson to Lyttleton is a twenty hours' voyage, and then the emigrant has done with the sea, and has only a charming drive, which reminds one, in the description, of the road depicted by Captain Burton from Petropolis to Juiz da Flora in the Brazil.

Christchurch is highly civilized. "It might be a hundred years old," says Lady Barker, when she praises its well-paved streets, its gas-lamps, its pillar post-offices, and its drinking-fountains ; but these things belong rather to the newest than to the oldest cities. Christchurch is also excessively genteel. Ladies began to "call" immediately, very nice ladies too, somewhat like what our great-grandmothers were, only not quite so plain-spoken ; possessing an immense amount of practical knowledge, and yet knowing how to surround themselves, according to their means and opportunities, with the refinements and elegances of life. In this thriving little town "there are no paupers ; every one is well fed and well clothed, and the children are really splendid." Also, every one is very healthy. It is necessary to remember that "north" in New Zealand answers to "south" here,

when the frequent mention of a delightful north aspect occurs.

Sixty-five miles from Christchurch is the fine station of Heathstock, and here may be witnessed in perfection the important and interesting work of sheep-shearing. Here is an account of the wool-shed, as curious as those of the saladeros of South America, but much less repulsive. "Each shearer has a trap-door close to him, out of which he pushes his sheep as soon as the fleece is off ; and there are little pens outside, so that the manager can notice whether the poor animal has been too much cut with the shears, or badly shorn in any other respect, and can tell exactly which shearer is to blame. Before this plan was adopted, it was hopeless to try to find out who was the delinquent, for no one would acknowledge to the least snip. A good shearer can take off one hundred and twenty fleeces in a day, but the average is about eighty to each man. They get one pound per hundred, and are found in everything, having as much tea and sugar, bread and mutton, as they can consume, and a cook entirely to themselves ; they work at least fourteen hours out of the twenty-four, and with such a large flock as this—about fifty thousand—must make a good deal. We next inspected the tables, to which two boys were incessantly bringing armfuls of rolled-up fleeces ; these were laid on the tables before the wool-sorters, who opened them out, and pronounced in a moment to which *bin* they belonged ; two or three men standing behind rolled them up again rapidly, and put them on a sort of shelf divided into compartments, which were each labelled, so that the quality and kind of each wool could be told at a glance. There was a constant emptying of these bins into trucks, to be carried off to the press, where we followed to see the bales packed. The fleeces are tumbled in, and a heavy screw-press forces them down till the bale—which is kept open in a large square frame—is as full as it can hold. The top of canvas is then put on, tightly sewn, four iron pins are removed, and the sides of the frame fall away, disclosing a most symmetrical bale ready to be hoisted by a crane into the loft above, where it has the brand of the sheep painted on it, its weight, and to what class the wool belongs. Of course everything has to be

\* *Station Life in New Zealand.* By Lady Barker. London : Macmillan & Co.

done with great speed and system. I was much impressed by the silence in the shed—not a sound was to be heard except the click of the shears, and the wool-sorter's decision, as he flings the fleece behind him, given in one, or at most two words. All the noise is *outside*; there the hubbub, and dust, and apparent confusion are great. You can hear nothing but barking and bleating, and this goes on from early morning till dark. We peeped in at the men's huts—a long, low, narrow building, with two rows of "bunks" in one compartment, and a table with forms round it in another, and piles of tin plates and pannikins all about. The kitchen was near, and we were just in time to see an enormous batch of bread withdrawn from a huge brick oven. The other commissariat arrangements were on the same scale. Cold tea is supplied all day long to the shearers, and they appear to consume great quantities of it."

Lady Barker's wooden house was made at Christchurch, the dimensions being regulated to suit the carpets they had brought out. She petitioned for a little bay-window, and on her last visit of inspection, the builder asked: "Would you wish to see the *horiel*, mum?" Six weeks after they had fixed on their "station," the house was ready; and then they found they had been wrong in bringing out furniture, for the expense of carriage (in New Zealand) was enormous, and there are capital shops where everything may be bought at English prices. Wages of all sorts are given; employment is a certainty; and even the London cabby may be content with a rate of fares which makes a morning visit three miles out of town, and lasting a quarter of an hour, cost one pound ten. The town is very pretty, all the streets being bordered with large trees. It has been found necessary to legislate against watercress, which had spread so rapidly since its introduction, as to become a perfect nuisance, blocking up mill-streams, causing meadows to be flooded, and doing all kinds of mischief.

A tremendous nor'-easter, which would be our sou'-wester, blew an accompaniment to the settler's journey, and introduced Lady Barker to her first acquaintance with a dust-storm. In July, when quite settled at their station of Broomielaw, in the Malvern Hills, she writes of the delicious mid-winter days: "We are

glad of a fire at breakfast, but we let it out, and never think of relighting it until dark. I bask all day in the veranda, carrying my books and work there soon after breakfast; as soon as the sun goes down, however, it becomes very cold. In the house, which is only one plank an inch thick, lining-board, canvas, and paper, a good fire is wanted between you and a hard frost." It is a curious life to think of, a curious scene to contemplate, that lonely "station" at the Antipodes, with its horizon boundary of beautiful hills sheeted in snow, its great tracts of grassland, its tiny shoots of English trees, its luxuriant broom, its beginnings of vegetable and fruit garden, and the wooden house, so neatly arranged, so homelike and elegant, so untouched by the customary roughness of colonial life in the distant interior. One naturally thinks of a log-hut in such conditions, but here is the reality.

"Out of the veranda you pass through a little hall, hung with whips and sticks, spurs and hats, and with a bookcase full of novels at one end of it, into a dining room, large enough for us, with more books in every available corner, the prints you know so well on the walls, and a trophy of Indian swords and hunting spears over the fireplace; this leads into the drawing-room—a bright, cheery little room—more books and pictures, and a writing table in the 'horiel.' In a tall white, classical-shaped vase of Minton's is the most beautiful bouquet, made entirely of ferns; it is a constant object for my walks up the gullies, exploring little patches of bush to search for the ferns, which grow abundantly under their shelter by the creek. I have a small but comfortable bedroom, and there is a little dressing room for F—, and the tiniest spare room you ever saw—it really is not bigger than the cabin of a ship. I think the kitchen is the chief glory of the house, boasting a 'Leamington range.' There is a good-sized store-room, in which F— has just finished putting me up some cupboards, and a servants' room. It is not a palace, is it? But it is quite large enough to hold a great deal of happiness."

Skating excursions, in the intervals of business, for her husband and his companion—a young gentleman learning sheep-farming, and for herself, housekeeping, botanizing, long walks, and rides in the

beautiful country, and through the delicious air, with the constantly high musical wind—these constituted the avocations and amusements of Lady Barker's distant home. She established a little congregation—of which her husband was the minister—at Broomielaw, and she visited and made friends with all the humble industrious households within her reach. She met with strange and interesting people, and with many a nature of more cultivation and refinement than one could possibly expect in a place so distant from the old associations of culture and home. One is persuaded on reading this book, that there is no colony so little savage as New Zealand; the colonists are certainly the *élite* of the emigrant class in all ranks, and the amenities of life best preserved and most highly prized.

The storms are a great drawback. One nor'-wester succeeds another; one sou'wester has hardly blown himself out, before his twin brother comes rushing from the cavern of the winds. And in addition to the discomfort they produce, these storms do much mischief to animate and inanimate property; especially they kill numbers of the bush birds, whose presence and song constitute a great charm in the life of that jubilant young country. An air of cheerful prosperity reigns everywhere, but the people *do* talk too much about sheep and money. They had glorious pic-nics, and balls contrived with wonderful ingenuity, considering there were but six ladies to dance with the "haill country side," at Christmas, when the heat was the sole hindrance to perfect enjoyment, and the dancing took place at daylight.

Lady Barker is of opinion that there is no place in the world where people can live so cheaply and so well as on a New Zealand sheep-station, when the first expense of setting everything going has been gotten over.

Lady Barker concludes her account of the labors of her well-spent days—the form of her narrative is epistolary—with the following enviable little sketch: "After dinner, F—— and I go out for a walk or a ride, generally the latter—not a little shabby canter, but a long stretching gallop for miles and miles; perhaps stopping to have a cup of tea with a neighbor, twelve or fifteen miles off, and then coming slowly home in the delicious gloaming, with the peculiar fresh crisp feeling which

the atmosphere always has here the moment the sun sets, no matter how hot the day has been. I can hardly hope to make you understand how enjoyable our twilight hours are; every turn of the track, as we slowly wend up the valley, showing us some beautiful glimpse of distant mountain peaks; and above all, such sunset splendors, gradually fading away into the deep, pure beauty of a summer night."

The delights and the dangers of "camping out" are also within Lady Barker's experience. She went to see the sunrise from the top of Flagpole, a hill three thousand feet above the level of the sea, and passed what she candidly confesses to have been the longest night of her life, within an inconsiderable distance of the summit. All the toil, cold, and discomfort were, however, amply rewarded by the prospect (when the dawn really came), which had all the mountain, plain, and river beauty which they had dreamed of, and one additional touch of interest and glory on which they had not counted. Just when the sun was climbing up, and the curtains were being lifted off the hills, some one cried out: "There's the sea;" and they saw it, as distinct as though it lay near at hand, instead of fifty miles away. None of the party had seen it since their landing in New Zealand: to all of them it was associated with the idea of going home some day. The magnificence of the prospect made up for all the cold, fatigue, and discomfort they had undergone. Indeed, the beauty of New Zealand seems to be as varied as it is striking. Monotony is not one of the grievances of the colonial life there, if any grievances there be, except "the deep unutterable woe which none but exiles feel," and one which came within the experience of Lady Barker in a terrific manner, and her endurance of which crowns the impression of her heroism in ordinary life created by her narrative.

Towards the end of July, 1867, the weather was very wet and cold, but cleared up in the last few days. All the stores at the station were at the lowest ebb, and, after waiting a day or two, to allow the roads to dry, the dray was despatched to Christchurch for provisions, and Lady Barker was left alone, her husband also having to go to Christchurch, but arranging to send a friend to escort her to the town on the following day, as he should

be obliged to remain for a week. The lambing season was only just terminated on the runs ; thousands of lambs were skipping about ; their condition was most satisfactory, and the prospects of the colonists were flourishing. On the 29th, there was a "sou'-wester;" but no change was made in their plans, and Lady Barker was left alone : "My mind," she says, "was disturbed by secret uneasiness about the possibility of the dray being detained by wet weather ; and there was such an extraordinary weight in the air, the dense mist seemed pressing everything down to the ground. I was so restless and miserable, I did not know what was the matter with me. I wandered from window to window, and still the same unusual sight met my eyes ; a long procession of ewes and lambs, all travelling steadily down from the hills towards the large flat in front of the house ; the bleating was incessant, and added to the intense melancholy of the whole affair. When Mr. V—— came at one o'clock, he said that on the other ranges the sheep were drifting before the cold rain and mist in the same manner. Our only anxiety arose from the certainty that the dray would be delayed at least a day, perhaps two : this was a dreadful idea. For some time we had been economizing our resources, to make them last, and we knew there was absolutely nothing at the home station, nor at our nearest neighbors', for they had sent to borrow tea and sugar from us. At dusk, two gentlemen rode up, not knowing F—— was from home, and asked if they might remain for the night. They put up their horses, and housed their valuable sheep-dogs in a barrel full of clean straw, and we all tried to spend a cheerful evening ; but every one confessed to the same extraordinary depression of spirits that I felt."

This was the beginning of a period of terror, suffering, and loss, which needed all the nerve and resignation at Lady Barker's command. The next morning the snow was falling thick, fine, and fast ; no sheep were visible, and intense silence prevailed. There was very little mutton in the house, no oatmeal, no coffee, no cocoa, and after breakfast, about an ounce of tea. A very small fire only could be allowed. Towards night, Lady Barker fancied the garden-fence looked strangely dwarfed, but no one was alarmed. "Snow never lies in New Zealand." Next morn-

ing it was four feet deep, still falling heavily and steadily in fine dense clouds ; the cows were not to be seen ; the fowl-house and pigsties had entirely disappeared ; every scrap of wood was quite covered up : both the verandas were impassable, and the only door which could be opened was that of the back-kitchen. The commissariat was in the following condition : "The tea at breakfast was merely colored hot-water, and we had some picnic biscuits with it. For dinner we had the last tin of sardines, the last pot of apricot jam, and a tin of ratafia biscuits. There were six people to be fed every day, and nothing to feed them with. Thursday's breakfast was a discovered crust of dry bread, and our dinner rice and salt—the last rice in the store-room." The snow fell unceasingly ; only one window in the house afforded light ; every box was broken up and used for fuel. On Friday there was nothing in the house but black-lead ; the women-servants were in terrified despair. Of the sheep no trace was to be seen ; the dogs' kennels could not be got at. On Saturday the cows were found, and dragged within the enclosure ; and after four hours' severe toil, a little oatmeal hay was dug out for them. Now nothing remained but one bottle of whiskey, and all were starved and frozen. On Sunday the rain came out heavily, and in time so far washed the drifts away that the gentlemen contrived to tear off some shingles of the roof of the fowl-house, and procure some aged hens, mere skeletons after a week's starvation ; and also to pick away a rail from the stock-yard fence, which gave them an hour's firing, and enabled them to make a kind of stew of the hens. After this meal, every one went to bed again, for candles were scarce. On Monday the rain partially cleared the roof and the tops of the windows ; some hay was procured with incredible toil for the starving animals, and some more fowls were killed. The wind shifted, and the imprisoned party began to have some hope of saving some of the thousands of sheep and lambs which they now knew were buried under the smooth white winding-sheet. All night the gale roared, and on Tuesday the pigsty was comestable, and one of its inmates, who had been perfectly snug all the time, was slaughtered, so that the fear of starvation was at an end. On Wednesday, they saw the sun ; and the gentlemen

succeeded in digging out the dogs ; and then Lady Barker insisted on accompanying them to the summit of a neighboring hill, in order to ascertain the fate of the sheep. This must be told in her own words, a forcible and simple account of one of the most terrible calamities which ever befell New Zealand, where it appears this fearful snow-storm had been foretold by the Maori, though there is no record among their traditions of any similar disaster.

" As soon as we got to the top, the first glance showed us a small dusky patch close to the edge of one of the deepest and widest creeks at the bottom of the paddock. Experienced eyes saw that they were sheep, but to me they had not the shape of animals at all, though quite near enough to be seen distinctly. I observed the gentlemen exchange looks of alarm, and they said some low words, from which I gathered that they feared the worst. Before we went down to the flat, we took a long careful look around, and made out another patch, dark by comparison with the snow, some two hundred yards lower down the creek, but apparently in the water. On the other side of the little hill the snow seemed to have drifted even more deeply, for the long narrow valley which lay there presented, as far as we could see, one smooth level snow-field. As soon as we got near the spot we had observed, we found we were walking on frozen sheep, imbedded in the snow one over the other ; but, at all events, their misery had been over some time. It was more horrible to see the drowning huddled-

up 'mob' which had made the dusky patch we had noticed from the hill."

The tremendous exertions made by the whole party, the suspense and pity they felt, the small effect their exhausting labor produced, form a touching picture. In the case of the second "mob," all the sheep were dead, but a few hundreds were saved among the first. On an island formed at the head of the creek, where the water swept with such fury round a point as to wash the snow and sheep all away together, till at some little distance they began to accumulate in a heap, Lady Barker counted ninety-two ewes in one spot, but could not wait to count the lambs.

The total loss was half their flock and ninety per cent. of their lambs. When they learned the news of the fearful snow-storm from other parts of the country, they found that the distant "back country" ranges had suffered more severely than they had, for the sheep took shelter under the high river-banks, and the tragedy of the creeks was enacted on a still larger scale ; or they drifted along before the first days' gale, until they came to a wire-fence, and there they were soon covered up, and trampled each other to death. Not only were sheep, but cattle, found dead in hundreds along the fences on the plains.

This tragic occurrence is the sole drawback to the best, pleasantest, and most encouraging narrative of colonial life to be found among the abundant literature of emigration.

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The Spectator.

#### EVIDENCE FROM HANDWRITING.

THE *Quarterly* asserts that Mr. Twisleton in his forthcoming book on Junius has placed the authorship of the celebrated Letters beyond controversy, and we agree with the *Quarterly*. At least, we cannot imagine circumstantial evidence on behalf of any proposition more absolutely unanswerable. If Sir Philip Francis and Junius were not identical, then it is possible for two persons not only to have precisely the same tricks of handwriting, and the same individualities of punctuation, and to preserve them through seams of manuscript, but to be able without knowing it in all moments of forget-

fulness to write different hands, each of which shall be the hand of the other. Most of our readers are probably familiar with Macaulay's celebrated summary of the evidence which identifies Sir Philip Francis with the invisible author of Junius, the coincidences of peculiar knowledge, personal history, likes and dislikes, and political opinions between the two personages ; but Mr. Twisleton has employed a new test, the evidence of an expert in handwriting, Mr. Chabot, who, in an elaborate report, carefully though succinctly summarized by the reviewer, not only affirms his own belief that the letters

of Sir Philip Francis and the letters of Junius were written by the same hand, but gives reasons for the belief which even in their summarized form seem to us to force conviction. For example, it is clear that in comparing a disguised with an avowed handwriting, the first things to be considered are those unconscious peculiarities of which the writer himself is unaware, and which therefore he would make no effort to conceal. He would, for instance, carefully alter the slope of his usual handwriting, but would do this mainly in the downstrokes, the upstrokes being made by a movement almost instinctive. He would alter the size of his handwriting, a change which takes in all but careful observers, while he would retain one of the most marked of individual peculiarities, what printers call the "spacing," the distance between each letter of a word. The difference between huddling and spacing out is one which depends partly on character and partly on eyesight, and is as a rule entirely unconscious, very few men, perhaps none, spacing out their letters exactly alike or connecting them with each other in the same way. Again, some men make the upper turns of the letters angular while the lower are rounded, others the lower turns angular while the upper are rounded, and others make both either round or angular, but few writers not practised in comparing handwritings would be conscious which method they themselves pursued. In each of these three unconscious peculiarities Junius and Sir P. Francis were precisely alike, more alike than any two forgers imitating Sir P. Francis could have been. This habit of specialty, of course, extends to individual letters, methods of punctuation, and modes of correcting mistakes, the latter, we may observe, with our large experience in the reading of manuscript, being one of the most strongly marked individualisms. In all these circumstances Junius and Sir Philip Francis had exactly the same habits. For example, Francis frequently wrote the letter "i" upside down, as if it were the first stroke of the letter "m," a very unusual specialty of handwriting, and it reappears in the most striking way in his artificial hand. So does a singular trick of making a flourish above a small "t," which almost changes it into a capital letter, and a still more definite specialty, a habit whenever the letter "m" was

joined to the word preceding it of altering its appearance. Both Francis and Junius wrote the "m" by itself with rounded curves, and both when they prefixed a letter and joined the "m" on made the curves sharply angular, a coincidence explicable only on the theory of identity. So with punctuation. No two people, it may be said roughly, punctuate on the same principle, more especially if they employ, as most people who write hurriedly do, the dash instead of a period; and not only is the punctuation of Junius and Francis identical, but they both put a full-stop after a salutation, and both make the note of interrogation with three strokes instead of, as is most usual, with two. Both, too, corrected within the line instead of above or below it, and both marked the initial of their signature with strokes above and below the letter. This last fact is the more noteworthy, because Francis did not make these strokes in his original hand, but adopted them to help in disguising his hand, and caught the habit while composing the Junian letters. There are, in fact, no less than ten circumstances of identity between the two handwritings :—  
 1. The mode of dating letters.  
 2. The placing a full-stop after the salutation.  
 3. The mode of signing initials between two dashes.  
 4. Writing in paragraphs.  
 5. Separating paragraphs by dashes placed between them at their commencement.  
 6. Invariable attention to punctuation.  
 7. The enlargement of the first letters of words.  
 8. The insertion of omitted letters in the line of writing, and not above it, and the various modes of correcting miswriting.  
 9. Mode of abbreviating words, and abbreviating the same words.  
 10. Misspelling certain specified words." And finally it would be presumed that any person intent on disguising his hand would forget himself most frequently in dating his letters, and all the peculiarities of Junius's datings, as, for instance, his habit of putting a full-stop after the name of the place, are found in Francis's letters, while all the "dates were not inserted in the manuscripts as sent to the printer, but were added in the proof-sheets. It would seem that Francis, being more off his guard in correcting the proofs than in writing the letters, inadvertently inserted the dates in his natural handwriting; but, upon discovering the mistake he had committed, he carefully blotted out these dates, and

rewrote them above the obliterations in his feigned hand. . . . . On examining the photographed proof-sheets, we find that all the original dates have been obliterated and written in the feigned hand, except in one instance, namely, in the letter to Dr. William Blackstone, where Francis forgot to make the obliteration, and has left the date [29. July. 1769.] in his own handwriting." It seems to us, as to the reviewer, that after this evidence, which would be indefinitely more striking if we could give the fac-similes as he has done, doubt is impossible, except upon the theory that Francis copied somebody else's letters. That theory, however, is disposed of by the excessive effort made to secure secrecy, for which Francis as a mere amanuensis had little motive; by the character of Francis, who was no man to be an amanuensis; and by another argument which we submit respectfully to the reviewer. The most complete and most natural method of disguising the handwriting of important documents is to write with the left hand. An amanuensis would almost to a certainty have done this, but no man trying to write models of composition, trying to win the public ear by the form as well as the substance of his letters, would so embarrass his thoughts by reducing the speed at which they could be put on paper. He would content himself with writing a hand as unlike his own in general appearance as he could manage, would in particular adopt a much smaller hand, using a crow-quill, and this is precisely what Francis appears to have done.

We do trust that Mr. Chabot will one day give us, perhaps through the *Quarterly*, an essay explaining any view he may have as to the evidence of character contained in handwriting. No idea is more firmly fixed in men's minds than the characteristicness of handwritings, and none perhaps is so little based upon any well-conceived law. We do not know, for instance, with any certainty whether the key to handwriting is to be found in the intellect, in the moral nature, or in physical peculiarities, as, for example, eyesight, or in all of them,—whether handwriting can be inherited without the accompanying qualities, as many habits are inherited, or how far handwriting is modified by deliberate volition. Is it mere impatience, or is it moral deficiency, which induces some men never to dot an *i* or cross a *t*, or is it largeness of intellect, satisfied that the object of writing is intelligibility and not apparent neatness? What is it that induces educated people to omit all stops in their letters? Is it cruelty, or contempt for things so ignoble as grammar, or mere mental crassitude, and above all, what is the moral meaning of illegible writing? We will, in the name of all editors in England, promise Mr. Chabot such a testimonial, if he will only prove to demonstration that a man who, writing much, writes a really illegible hand is a selfish fool, a potential criminal, who should be executed for the benefit of society, and whose letters, till he is hung, it is a moral duty to throw away unread.

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The Athenæum.

DR. ROBERT CHAMBERS.

IN every part of the world where English is spoken, especially where it is spoken with a Scotch accent, the names of William and Robert Chambers pass over the tongue with something of esteem and gratitude. To the productions of their discreet and busy pens, brought to our hearths and homes by their cheap and indefatigable press, most of us, when young, owed much useful information that we might otherwise have lacked, and many kindly sentiments which we might not otherwise have felt. The brothers began to popularize and diffuse knowledge when political distraction, and a low apprecia-

tion of intellectual culture combined to discourage rather than to promote general education; not long indeed after the time indicated by Sydney Smith when no man who had not an independent five hundred a year dared proclaim liberal opinions; when a Chinese awe of the "wisdom of our ancestors" checked wholesome efforts to increase our own; when, consequently, books were quite out of the reach of the humble and needy. The value of the work then inaugurated by these two brothers of providing elevating and accessible mental ailment for "The Million" was incalculable. The loss, therefore, of one

of them is surely a public loss ; and Mr. Robert Chambers, who passed away on Friday, the 17th of March, will be mourned by all who value education and who love literature.

The brothers were born at Peebles, on the banks of the Tweed. Their father was a muslin-weaver, employing some twenty looms. Mr. James Chambers—at first a prosperous manufacturer, always a lover of books, a keen politician, an open-hearted friend—had already suffered in his purse from his kindness to the French prisoners paroled in Peebles during the wars of Napoleon, and was eventually ruined by the competition of machine with hand-loom weaving. He was obliged to withdraw his family, with the wreck of his means, to Edinburgh. Here, by the help of his sensible and energetic wife, he managed to bring up creditably a family of six children.

Robert, the second son, was born in 1802. He grew up a quiet, self-contained boy, unable, from a painful defect in his feet, to join in the robust play of his schoolfellows. He may be said to have devoured books from his infancy. In the preface to his collected works he writes : "Books, not playthings, filled my hands in childhood. At twelve I was deep, not only in poetry and fiction, but in encyclopaedias." A great prize fell into his hands in an old lumber-room to which he had retired for quiet. He found there a mass of odd volumes of the "Encyclopædia Britannica." These he read through with insatiable eagerness.

The rudiments of classical knowledge which Robert Chambers obtained at the Peebles public school were much improved in Edinburgh by the teaching of Mr. Benjamin Mackay, afterwards head master of the High School. At sixteen he broke away from home. His passion was books. Even at that unripe age he tried to write them ; but determined, at all hazards, to sell them. With a stock worth no more than two pounds, the produce of long savings of pocket-money, he commenced business ; a boy-bookseller, self-reliant, unaided. There lies before us a kind of small ciphering-book, containing young Robert Chambers's first year's account of profit and loss. The former was small, but, for his modest wants, sufficient. The writing is extremely neat. Indeed, the young penman was employed by the city authorities to copy on vellum the ad-

dress presented to George the Fourth, who visited Edinburgh in 1822.

Meanwhile, the elder brother, William, had also started as a printer and bookseller, and they commenced a crude weekly miscellany, called the *Kaleidoscope*. Robert was the editor, William setting up his own compositions in type without troubling himself with pen and ink. This first effort closed a short life in December, 1821.

Robert Chambers never ceased to cultivate his Tweed-side associations, and was therefore able to "spot," from personal knowledge, several of the characters in the Waverley Novels, then in the height of popularity. "Illustrations of the Author of Waverley," his maiden book, brought him into notice, and introduced him to Sir Walter Scott. His next venture, "Traditions of Edinburgh," has not ceased to be issued and read to this day. Every type of it was set up, every sheet pulled at press, by his brother. The first edition, dated 1823, presents a curious contrast to the handsome copies of the same work, improved also in other respects, published only last year.

Publishers now began to seek out its author. For one he wrote "Walks in Edinburgh," partly the result of rambles in the odd nooks and corners of the quaint old city in company with Sir Walter Scott. In 1824 there was a great fire, depriving many poor families of their means and homes. Robert Chambers, having no money to give them, wrote a book describing the past historical fires in Edinburgh, for their benefit ; and it sold largely. Having published his "Popular Rhymes of Scotland," he set out, as if determined to harden his tender feet by pedestrianism, to explore Scotland, chiefly on foot ; his object being to collect materials for his "Picture of Scotland"—a work that proved for many years to be the Scottish tourist's best companion. Although now a prosperous bookseller, he found leisure to write and compile upwards of twenty volumes. Among them five for Constable's Miscellany, entitled Histories of the Scottish Rebellions, and a Life of James the First in two volumes. Then, for other publishers, Scottish Ballads and Songs, a Biographical Dictionary of distinguished Scotsmen, and a compact little History of Scotland. He also edited for several years the *Edinburgh Advertiser* newspaper. Yet this goodly

[July,

list represents little more than the beginning of his literary career.

Neither was William Chambers idle. He toiled away in his snug little shop in the Broughton suburb, writing, printing, and selling books. He had already written and published an account of the legal constitution and customs of his native country, under the title of "The Book of Scotland." Another work, "The Gazetteer of Scotland," must have cost much labor, which, happily, proved to be profitable. About the end of the year '31 the turning-point in the fortunes of the brothers accidentally turned up. The agitation for Parliamentary Reform had awakened a necessity for the spread of education. Lord Brougham proclaimed that the "Schoolmaster was abroad." The schoolmaster accordingly appeared in various guises. Henry Brougham himself started him, through the agency of the Society for the Diffusion of Useful Knowledge, a formidable organization of Chairmen, Treasurers, Committees, paid and honorary secretaries, and local agents. This literary mountain did not labor in vain; and among its progeny was *The Penny Magazine*. A copy of the prospectus (which appeared a very long time before the periodical itself) having been seen by William Chambers—who had long been gestating similar schemes—he forwarded to one of the chief promoters several suggestions which, in his judgment, would have improved the chances of the project. No answer was vouchsafed to his letter, and his self-love was wounded. He determined to realize his unappreciated ideas himself; and they took the form of *Chambers's Edinburgh Journal*. The first number appeared on the 4th of February, 1832—six weeks before the ponderous Society in London fulfilled its promise of a *Penny Magazine*. Success exceeded not only expectation, but the means of production. The projector had to call in the aid of his brother Robert for the editorship; and all Edinburgh proved to be equal only to produce the Scotch edition, one of the largest printing-offices in London being employed to work off the supply for England and the colonies. *The Penny Magazine* expired long ago: *Chambers's Journal* still flourishes amongst the widely-read hebdomadals of to-day.

Robert Chambers's contributions to the *Journal*, of which he now became joint

proprietor, plainly express his mental organization. His early bent was towards history and archaeology, and he contributed many pleasant articles on these subjects. But it was the front page that he most impressed with his own idiosyncrasy. Gifted with keen, accurate observation, and a good-natured yet grave (therefore mirth-provoking) humor, his miniature portraits of character and pictures of life, under the name of "Mr. Balderstone," were so truthful and sympathetic, that, even when removed from their context and republished in seven volumes in '47, they met with a very general acceptance. The secret of their success is revealed in the Preface: "It was my design from the first to be the essayist of the middle class—that in which I was born, and to which I continue to belong. I therefore do not treat their manners and habits as one looking *de haut en bas*, which is the usual style of essayists, but as one looking round among the firesides of my friends." He also furnished articles on elementary science. Eventually, indeed, he became a leading geologist; and, in his favorite pursuit, he explored, hammer in hand, not only many parts of Great Britain, but visited Sweden, Norway, Iceland, Canada, and the United States. A theory which he had formed respecting Ancient Sea Margins he propounded before the British Association, and also in a volume with that title. The list of his other independent works comprises, "The Domestic Annals of Scotland," and a chronological edition of Burns's Poems, so arranged with connecting narrative that it serves also as a biography, with the money proceeds of which he helped to make Burns's sister comfortable for life. This was a labor of love. Robert Chambers was himself a poet,—tender, sympathetic,—as a dainty little volume printed, for private circulation, in '35, fully attests. Associated with Mr., now Dr. Carruthers, he produced the "Cyclopaedia of English Literature"; and lastly (if we except the mysterious work to be presently discussed), "The Book of Days."

During all this hard work, Robert Chambers helped to conduct, with his brother William, one of the largest printing and publishing establishments in Scotland, gradually grown out of the single hand-press at Broughton. He, too, aided in realizing an educational project so

complete that when commenced few men, even with the indomitable perseverance of these remarkable brothers, could have hoped to see completed. It is called "Chambers's Educational Course." This series of some fifty or sixty school-books begins with a three-halfpenny infant primer, reaches the classics through a whole library of grammars, dictionaries, and class-books, for teaching some of the foreign living languages and every department of English, including most of the sciences, and ends with cheap editions of several Latin authors, and a popular Encyclopædia, in ten thick volumes. To supplement what their Journal could not supply to the reading public, the brothers Chambers also wrote, with not much assistance, and published, "Information for the People," "Papers for the People," a series of Miscellaneous Tracts, besides several cheap editions of the best bygone authors.

Literary honors fell thickly upon Robert Chambers. He became a member of many scientific Societies, and enjoyed the rare distinction of being nominated into the Athenæum Club by its Committee of Management. The last years of his life were passed at St. Andrews; where the Senatus Academicus of the University conferred on him the degree of Doctor of Laws.

Memorials of Robert Chambers would hardly be complete without mention of "Vestiges of the Natural History of Crea-

tion," published more than a quarter of a century ago, to prove that the Divine Governor of this world conducts its passing affairs by a fixed rule, termed Natural Law: this book communicated a sharp shock to the nerves of the orthodox. Its real author may never certainly be known, unless some evidence confirming that which already exists be left among Mr. Chambers's papers: it has been ascribed to Mrs. Robert Chambers. The controversy which "The Vestiges" engendered was most envenomed in the North; and when, in 1848, Mr. Robert Chambers was selected to be Lord Provost of Edinburgh, he thought it better to withdraw, in the face of a storm raised against him as the supposed author. His brother William, however, afterwards filled the office, with so much satisfaction to his fellow citizens, that he was re-elected after serving the prescribed term of three years.

Included within a widely-spread reading public, Mr. Robert Chambers has left behind him quite a public of mourning personal friends. His genial manners and unlimited hospitality brought to his house, not only troops of local friends, but during his long residence in Edinburgh almost every distinguished visitor to that city. Even his own immediate successors would count for a small community. He passes away the patriarch of nine children and thirty grandchildren. Not one of these but can recall some affectionate memorial of his general kindness of word or deed.

Macmillan's Magazine.

### PATTY.

#### CHAPTER XXV.

*Continued.*

ROGER scarcely knew how nearly he had hit the mark; he did not guess at all that the poor deceitful woman was more natural with him than she had been since she was a child.

She questioned him again as to how he passed his time, and he told her.

"I know a trifle about money matters, ma'am, but not enough; bless ye, not half enough to guide such money as Watty's. I go to an old friend every day, and I'm learnin' to be a good man of business."

Miss Coppock stared.

"Dear me!" she said. "I should have

thought now you'd have preferred leisure after being busy all your life."

Roger gave her another searching glance.

"You're a deal too sensible to think that, ma'am, if you give it a second thought. Them as had to earn their daily bread is just the folk which finds daily leisure a burden. I spoke to you of a friend just now; I'll name no names, and then no one can be hurt. Him and me was lads at the same school, Miss Coppock. I stayed down in the parish, he went up to town, and I hoard no more on him; but he was nearly the first man I met when I comed up to London. He's got a fine thriving business here all his own, and yet he works as hard at it as he did when he began life

as a porter. If our money's managed his way, it 'ull double and treble itself."

Roger had drunk a little ale in honor of Miss Coppock, and this, with the long silence he had been living in since Patty's departure, had helped his tongue to an unusual flow of speech; but he checked himself, and glanced over his shoulder hastily. It was a great risk to speak of the money at all.

Miss Coppock looked and wondered; and twenty-four hours after, when she found herself at last on her way to Patty, she wondered still.

"Whatever will the girl do with that old father?" she thought. "She may dress him up in gentlemen's clothes, but when he begins to talk, be must be found out."

If Miss Coppock had passed her life in London, she would have known better; she would have learned that, with some folks, far worse ignorance than Roger's can be gilded so as to pass current.

She was a good sailor, and the journey was a real enjoyment; it took her back years of life. She was sorry when it ended, sorry when she reached Paris, and when the cab which conveyed her from the railway stopped at a white-fronted, green-blinded house in a quiet street; a French maid opened the door, and showed the way obsequiously to the visitor of "Mees Latimer." Here for the present we must leave her.

#### CHAPTER XXVI.

##### MRS. FAGG'S OPINIONS.

PAUL did not go back to Ashton till late in the afternoon. He had a good notion of locality, and so after refreshing himself and his horse at a wretched little inn, where the bread was mouldy and the ale sour, he managed to see a good deal of country before he at last found himself at the farther end of Ashton from "The Bladebone."

He had studied to avoid Carving's Wood Lane. Patty was nothing to him now, only a humiliating memory; but his mind was at peace about Nuna, and he did not want to risk the chance of the strange disturbance he had experienced that morning as he rode through the lane.

"After all, I'm no wiser than other fools," he thought; "does not all history, whether of life or fiction, tell the same tale? Love never was, never can be a comfortable or easy sensation; it must always be full of doubt and worry."

Yes, Paul Whitmore, doubt whether we are loved, fear that we are unworthy of the love we hope for—doubt, it may even be when we love really and fondly, as to whether our feelings are true or only self-deceit; for this doubt will come from the most real part of love, its humility, its unbelief in its own power of loving: but not a doubt which brings the shadow, however faint, of another between ourselves and the woman we love; not a doubt as to the prudence and wisdom with which we have acted. No, Paul, these are not the torments of true ardent love, of the blind passion which yet never strays aside from the direct line of its flight.

He felt impatient to see Nuna again—not the feverish intoxication of impatience which had doubled each minute that kept him away from Patty; there was more method and reason in his present mood, and yet he was impatient. He wanted to make matters straight, to be quite sure of Nuna, and to speak to Mr. Beaufort.

"I suppose I ought to have talked to the old gentleman before I said anything to Nuna, but then I never do as I ought; besides, I can keep a wife, so there's nothing to be said against my making it out with her first."

Mrs. Fagg had softened towards her lodger when she found that the Rector had taken him into such favor as to lend him his own horse; a favor which he owed far more to Mr. Bright's asking than his own, for Paul was bad at asking favors. Mrs. Fagg brought in his dinner, and waited upon him herself. But he was very silent; he had no questions to ask till she gave him one piece of information, and that startled him into talk.

"The Rector and Miss Nuna are going away to-morrow, sir; but you knew that, perhaps."

"Where are they going to?" Paul looked, as he felt, thoroughly vexed. Nuna had said nothing to him of this; he hated matters to go against his wishes, and he had planned out to-morrow after a fashion of his own.

"To Beanlands, sir; they always go there once a year, but only for a couple of days or so; it's Lord Lorton's place, Miss Nuna's grandpapa. Her mamma was Lady Mary Wynne, as you may have heard, sir."

No, he had not heard. This was worse and worse; he grew savage. He with

his democratic notions, and his horror of "upnish" people, merely because they were "upnish"—for in his heart Paul valued breeding highly—that he should have given his love to the granddaughter of a lord! It was impossible that Mr. Beaufort could listen to his suit.

"Do you know when they are to return?"

"Well, sir, we are to send a fly up to the station the second day after to-morrow. I believe they are coming then."

Paul gave a sort of grunt, but his landlady approved his dissatisfaction: it showed that he valued the Rector's company. She went into the kitchen to tell Dennis and found that worthy gravely instructing Bobby in the art of smoking his pipe.

"Mercy me, Dennis, how can you? The child 'ull be no better than a gun barrel or an engine funnel, all his dear little insides choked up with that filthy smoke. Bobby, did you never hear what happened to the little boy as smoked a pipe against his mother's wishes?"

Bobby's blue eyes looked like small cheese plates, he opened them so.

"The pipe stuck,"—Mrs. Fagg spoke with awful solemnity,—“stuck all day, and all night too, in the very self-same corner of that little boy's mouth, and by next morning it wasn't the little boy Bobby, as was fat and rosy and round, it was the pipe that had sucked the little boy into itself; there was nothing to be seen of him but the soles of his boots."

Bobby's lower lip had dropped with the progress of the story, and at this tragical point he burst into such a prolonged howl that his mother caught him up in her arms, and tried to comfort him with kisses.

"There, there, Bobby, don't be such a silly, don't; run and ask Sally if there's not a bit of ginger-cake in the tin."

Bobby went off with alacrity, though he still sobbed at the dreadful doom of the smoking boy; but Dennis felt himself aggrieved.

"I call that folly now; you know such a thing couldn't have happened, Kitty, then why tell the little chap it could? It's like them foolish fairy stories Miss Nuna gived to Bob, making bears and such talk. Why the next thing 'ud have been, if I hadn't burnt the book, we should have had Bob flinging himself between the two next dogs he sees fighting, a-talking to 'em as if they was Christians."

"Bless you, Bob's not such a fool. But look you here, Dennis, I've a better opinion of our lodger than I had, and I don't object to his being here since he's took up with the Rectory. Mr. Beaufort may be a fidget and fanciful, but he's a real gentleman, and no one can get anything but good from his company. Mr. Whitmore was quite put out when he heard they were gone."

"Did you hear Miss Matthews were coming back?" said Dennis, with a look of great wisdom in his flat, complacent face.

"No, and I do hope she'll stay away; Miss Nuna's looked herself again ever since Miss Matthews went."

"She's coming, as sure as a gun. When I took the horse round just now, cook told me so herself." Mrs. Fagg could not restrain a slight elevation of the eyebrows at her husband's appetite for gossip. "Cook says Miss have been fretting about it, but master's more comfortable with Miss Matthews than without her."

"In-deed!" Mrs. Fagg laid a prodigious stress on the first syllable, and then she stopped, her breath coming in a series of short pants, as if indignation were too much for her. "Now I tell you what, Dennis; you know as well as most, that I don't give myself to talking of my neighbors, but if that Miss Matthews comes back to The Rectory, she don't leave it till she's married the Rector,—that's what she'll do."

Mrs. Fagg moved her head with a sort of sagacious wave, as if she wished to indicate that Miss Matthews' designs had been made known to her by special revelation.

Dennis had gone on smoking quietly; he took the pipe from his mouth, puffed out a long cloud of smoke, and then gave a little laugh behind his hand.

"Well, Kitty, and why not? The Rector's not much older than me."

Mrs. Fagg made an effort to suppress her feelings, but there was a strong flavor of contempt in the look she gave her husband.

"I'm not thinking of the Rector; if he chooses to make an old fool of himself, he'll only follow suit with most men as has been more lucky than usual in their wives. Bless 'em, poor simpletons, they can't let well alone; just as if it 'ud be common justice for one man to have such luck twice over."

"Well, then," Dennis felt rather nervous;

he laid down the law to his wife, and would not have acknowledged her superior wits even to himself, but he had a secret awe of them, an awe which made him always endeavor to elicit her opinion before he delivered his own—"then if you're not thinking of the Rector, Kitty, who is it you are thinking of? Miss Matthews? I rather thought myself the change would have suited her."

"Miss Matthews!" Mrs. Fagg's voice had got into an unusually shrill key. "She, indeed! Why, she's the very last person to be thought of at all; a poor sort of nobody, worming and twisting herself in like a cork-screw, till she's got such a firm hold of the Rector that it's my belief she'll do as she likes with him. Talk of foxes! if ever there was a white fox standing upon two legs in a lavender gown, it's Miss Matthews!"

"Come, come, Kitty, I'm sure she spoke you very pleasant that day she comed here."

"Did she, now? There's iron that'll look black when it's at red heat yet, and there's folks as can make believe looks which is a lie as to what's inside 'em. Miss Matthews 'ud smile through anything if she thought it 'ud serve her purpose. She's one you can't take on her own showing, Dennis, she wants a dictionary to make her out, and I rather take it Miss Nuna's sad face is her dictionary."

"Prejudice, prejudice, my dear!" said Dennis. He never gave in openly; that would have undermined the dignity on which he prided himself. "You see," he emphasized each word with his forefinger, "you women must always have an object to sharpen your wits on; it's the same with you all; it used to be poor little Patty, and now it's going to be Miss Matthews. Well, she's no beauty;" and Dennis went on smoking.

Mrs. Fagg had been right on one point; Miss Matthews was so eager to obey the Rector's summons, that she arrived at Ashton next day, very soon after Mr. Beaufort and Nuna had departed.

She did not seem disappointed at finding the house empty; on the contrary, she told cook that she considered it very desirable she should be there to receive Miss Nuna on her return.

Cook felt restive; but there was something so collected and self-possessed about her master's cousin, that the old servant

was powerless to resist the mandates issued from time to time, as Miss Matthews set vigorously to work to tidy up the house.

The change she effected was wonderful. The study was cleared of all superfluous litter, the books were taken down and dusted, and the shelves given up to Jane to be thoroughly cleansed; stray volumes lying about in heaps, taken down for reference from time to time, and left just where they had been used, were carefully replaced in the sets to which they belonged; manuscript of all kinds was carefully collected and tied in bundles, for Miss Matthews did not exercise the delightful right of private judgment in the way of destruction assumed by some female tidiers, although, perhaps, she had a great contempt for "useless scribble."

The room looked much larger, much lighter, too, by the time she had finished her labors. There was an exasperating primness about it; the table was cleared of all but the inkstand, and every chair stood back against the wall. In Nuna's bedroom Miss Matthews was less merciful; everything that "harbored" dust was odious in her sight, and long-treasured birds' nests and trophies of bulrushes and grass blossoms, and other remembrances which Nuna loved to bring from her favorite haunts, were unsparingly condemned. Miss Matthews would have liked to fling some of the dirty old casts away, and to burn many of the drawings, too, simply because they "harbored" dust, but Jane's look of surprise, and her indignant "Why, Miss Nuna did all them herself," restrained Miss Matthews for the present. Elizabeth abhorred the word art and its accessories; it was useless, and it always brought litter of some kind, and litter was her *bête noire*. In one of Dickens's Christmas stories, there is a captain whose only travelling encumbrance is a comb. Miss Matthews travelled with plenty of boxes—she considered it a mark of distinction so to do; but she strongly resembled the captain in her dislike to personal accessories.

Paul heard of her arrival, and he met her once in the village. He was puzzled at Nuna's dislike to her cousin. He took the reading of Miss Matthews which her face offered him. He thought she seemed a quiet, ordinary sort of woman, rather sweet-looking than otherwise.

He wished she had spoken to him. Ashton was so intensely dull in this leafless season, and he was determined not to go near Gray's Farm again.

His fancy for Nuna was growing faster in this separation than it would have grown if she and her father had stayed at the Rectory; and when the evening came at last on which they were expected to return, Paul found himself almost without his will on the road to the station, impatient to catch the first glimpse of her loving eyes.

#### CHAPTER XXVII.

##### NUNA'S LOVE.

NUNA had always looked forward with dread to the visit at Lord Lorton's. Till now Mary had been the favorite with her grandfather, and Nuna had been left at home when her father and sister went to Beanlands; but this year there had been no escape, and she had shrunk from the dreary prospect of two days of solemn, ceremonious dulness.

And yet she was so glad to escape from Ashton—so afraid of trusting herself again with Paul—that it was at last a relief when she found herself safe on her way.

She was not sure how much was real, how much the work of her own imagination, in that last interview. In a new scene she hoped to be able to take a calmer, more dispassionate view of her own feelings—as if calm was likely to come again in her contemplation of Paul. Nuna knew that she loved, but she had no power of estimating the strength and depth of the passion which Paul had set free from its hiding-place; she only knew it in the shrinking with which she dreaded another meeting, a dread that grew to terror when she felt how she longed for his presence. She could not believe in Paul's love; it was only a sudden interest, she thought, aroused by the love she had herself betrayed by her impulsive, unguarded confidence in him.

"It is not love at all,"—this was how the poor girl tortured herself on the first night of her visit to Beanlands,—"only pity for my desolate state. And then he may go on and mistake pity for love; no, he shall not do this when I go back to Ashton; I will die before I see him alone again. If he were to ask me that question again, my face would tell the truth, even if I kept silence."

And what would be the end? Her answer did not come as Paul's answer had come to the self-same question. Nuna had no hope of becoming Mr. Whitmore's wife; but it seemed more than ever impossible to get through life all alone, now that she had tasted even for an instant the exquisite bliss of believing that he loved her; it would have been better never to have seen him.

"No," said Nuna fervently, "life has only been life to me since I saw him; and if he changes when I go back to Ashton—if I find that he has repented his sudden words and gone away for ever—there will always be the memory of his presence at the Rectory. I can always picture him there, and that will keep my life from being lonely."

A keen, quick anguish succeeded her words, and she hid her face on her pillow and wept the passionate, scalding tears that true love is apt to produce.

For there was no sand in Nuna's heart, no mere impressionable substance over which the waters of forgetfulness, the tide of change, could flow, effacing these agonies of first love—so effacing them as to leave a smooth surface again, a surface that might seem to the unpractised eye fresh and untried. There may be, doubtless,—judging by what one sees in life,—there are different kinds of love; but such women as Nuna, women in whom love is innate rather than inspired, only love once, and then their whole being yields itself up for ever, is fused for ever into the nature which has subjugated theirs. Nuna's love might be better likened to one of the inscriptions on Eastern rocks; Paul's image lay graven indelibly on her heart, no human power could ever erase it.

Her father noticed her silence, but he fancied she was timid. Her grandfather had the gout, and was fractious—so fractious that Nuna earnestly hoped her father would never suffer from the disease, in spite of Lord Lorton's assurance that gout was quite a thing to have. She must have betrayed her democratic tendencies at some of these stereotyped remarks, for his lordship told her father that Nuna was a very pretty, graceful creature, but that she "wanted ballast." Mr. Beaufort communicated this remark when they were at last on their way back to Ashton.

"What is ballast?" said Nuna, laughing.

"Well, my dear"—Mr. Beaufort looked slightly perplexed—"I expect your grandfather means deportment—a more staid presence than you have. He likes women to keep their proper sphere, they should move well and have pretty feminine accomplishments, they have no need to think deeply; I saw him shake his head this morning when he found you reading Carlyle. He thinks that women should be stately and dignified, but he dislikes new notions. He says women should persevere in the beaten track—he never wishes to see any change in them."

Nuna had not listened. They were in the fly now; in another half-hour they would be home again. Through the morning she had felt as if she could not wait for the time of starting; she must see Paul, and it was possible he might leave Ashton before they reached it. But now she had changed again; every minute was lessening the distance between them, and the dread that had so tormented her, the dread of seeming to claim his love against his will, came back to Nuna, and made her sicken with fear of seeing him.

Her father leaned forward when they came to a turn in the road, and waved his hand. Nuna looked. There was Paul, and at the sight of him, of the joy that shone out in his face, Nuna's heart gave a wild leap, and then she sank back in the carriage. Rest had come at last. She was tired, yet so ineffably happy. In the transient calm that descended on her poor struggling soul, she realized all that she had been suffering, the exhaustion of her sleepless nights and troubled days.

A few minutes more and she should be safe in the quiet of her own bedroom, the only confidant she had now, the storehouse of much unwitnessed emotion. Lately, indeed, during her cousin's visit, this room might have been called, in Persian fashion, the Place of Tears.

"At last!" she said, when the fly stopped at the Rectory gate. If Nuna had been less absorbed, the shock would have come less suddenly, but it was terrible; there stood Elizabeth smiling a sweet welcome to them both, as if they were visitors, and she herself the mistress of the parsonage. Nuna felt stunned, she submitted passively to her cousin's kiss, and went on silently into the house.

"There is a nice fire in the study, dear," said Miss Matthews, with a chirrup in her

voice that was hateful to Nuna. "Won't you come in and warm yourself, dear?"

Nuna was hurrying to the staircase, but an exclamation from her father stopped her. She paused, and looked into the study.

The Rector was standing before the fire with both Elizabeth's hands in his.

"I don't know how to thank you," he said, warmly; "the room has not looked so home-like since I lost Mary."

Nuna had heard enough; she glided away, and when she reached her bedroom the changes there passed without notice. Storm had risen in her sorrowful soul—storm which threatened to wreck all the peace she had left. She shut the door, locked it, and then stood leaning against it; she had no power to move in that moment of passionate anger—anger in which she felt capable of leaving her father and her home for ever, a father who was so cruelly unnatural as to prefer a stranger to his own child. But the fierce swelling tempest burst into a shower of tears, great scalding drops, and the slender frame shook like a lily in summer rain.

You are perhaps thinking that Nuna weeps for her own shortcomings, and that these are tears of anguish that her forgetful, uncareful nature has made her neglectful of her father's comfort; but Mary's mistake told here against her young sister. Nuna's moral nature had not progressed with her mental powers during the years she had passed with Miss Matthews, and, except for her father's erudite but not very spiritual sermons, she had had no special outward help against herself since Mary died; and as, moreover, an indulged dislike generally brings its own sting with it, it is certain that Nuna's feelings towards her father and her cousin were at this moment most unreasonably bitter.

She was like a traveller jogging along through a dull, uninteresting journey; there is nothing to please him, but also there is nothing to cause him serious vexation. Suddenly he takes a wrong turning, he has a slight consciousness of his error, he almost wishes to retrace his steps, but he persists in going on till, losing his track altogether, he plunges into the dangers of which he had been warned before he set out.

Instead of the rest she had hoped for, here was the beginning of daily vexation. She had no thought of coping with it; she

only writhed at the prospect before her. All light had gone from her life. What had been her troubles heretofore compared to this? To see the only creature she hated set in the place of her dead sister. Even to herself she could not frame the further evil she dreaded. Filial reverence had not quite left her, and it would have seemed an insult to her father to fancy even that he could think of Elizabeth except as a cousin.

Her eyes travelled mechanically round the room, and recognized the changes effected during her absence; but these did not awaken fresh anger; Nuna's mind had no pettiness in it.

"She shall not have power to vex me," she murmured. It was sad to hear how bitterly she spoke, and to see the scorn that curved the delicate lips. "She is too contemptible to quarrel with." She stopped; her eyes had lighted on something that aroused a fresh train of thought. A small table that she had left littered with painting materials had been cleared, its encumbrances lay in neat precision on a shelf above, and on the table, in a pretty terra-cotta flower-pot, was a club-moss, the plant, Nuna's instinct told her, that Will had promised her. Will and his love, and herself as mistress of Gray's Farm, flitted like a vision across Nuna's thoughts; and with this came the feeling of refuge from Elizabeth; scarcely for an instant, and then she had almost flung the poor club-moss out of the window, so intense was the disgust that succeeded.

She sank down into a chair, wearier than ever, so lonely, with such an ache at her heart, that even her tears flowed no longer from the dull weight there. Gradually there came to her timidly, as if it feared to mingle with the strife that had been raging in her breast, the memory of Paul's look of love.

"He loves me; yes, he loves me. Oh, if he leaves me, I must die!"

And as imagination, always with Nuna so much harder at work than was needful, conjured up the picture of her life alone, without the love she craved, the heart-ache culminated in a deep shuddering sob, then another, and tears came at last; no longer the proud scalding drops which had only stimulated her resentment, but softening, tender tears.

Nuna's brow was smooth, and she could

look cheerful when she at last went downstairs.

Several letters lay on the tea-table, one of them in an unknown handwriting. Nuna opened the first, and then smiled at the result of her curiosity.

"I thought I had a new correspondent," she said, "and it is only a circular to say that Miss Coppock has retired from business, and that some one from Weybridge solicits the continuation of my distinguished patronage. I wonder Miss Coppock did not tell me she was going away."

#### CHAPTER XXXVIII.

##### PATTY THE HEIRESS.

MISS COPPOCK found herself ushered into a bare but exquisitely clean room; the floor, the walls, the furniture—that is, the chairs and a table, there was nothing else—were all oak or oak color, a quiet neutral tint that would have relieved pictures, or flowers, or any object of art, but which had a too sober shade by itself.

Miss Coppock had scarcely time to take in the general effect when the door opened, and there was Patty—Patty, so radiant in her glowing beauty that you felt at once the room had wanted her to frame with its quiet contrast; Patty dressed to perfection, both as to style and fashion, and yet with that sought simplicity of which so few English women understand the secret.

She put her arms round Patience, and kissed her on both cheeks.

"So glad to see you; so kind of you to come on so quickly."

Involuntarily Patience drew back; she looked at Patty, and their eyes met. In those deep blue lustrous eyes Miss Coppock read that her empire had departed; there was no effort even at the graciousness which pervaded the girl's manner; there was no effusion, but there was perfect repose. In that instant Patience saw that Patty had far more self-control than she could herself ever attain to, and she felt bitterly that if she meant to benefit by her apprentice's rise in life, it could be only by subservience to her wishes. She did not realize what had caused the change, she only felt it.

Poor Patience! this her last hope of ruling was over. If she meant to live in luxurious idleness, she must go back to her life of dependence. "So soon too," she said; "not six months, and the girl

moves about as quietly as a born lady could. I didn't think she was half so clever." Still Patience was a woman, and she would not give in without one effort for rule.

In her letters Miss Coppock had proposed to take a lodging where Patty could receive her professors ; but Patty had left the proposal unanswered.

"When are you to leave Madame Mineur's?" she said gravely.

"Not just yet, I think." Patty's tone was so calm and she smiled so bewitchingly that Miss Coppock felt helpless. "You had better get yourself a lodging at once, Patience. Madame Mineur has been inquiring for some suitable apartment for you. You must have a pretty room, you know, for I mean to spend my Sundays with you."

This was an opening. "It would be far better"—Patience spoke awkwardly and stiffly ; she wanted to gain her point, and yet she was afraid of offending Patty—"far better if you came at once and lived with me altogether."

She looked up quickly ; she expected to see Patty toss her head and pout. Instead, the lovely lips curved into a smile,—a smile that broadened, at the growing discomfiture in her friend's face, into a little musical laugh.

"Do you think so? I'm sorry to disappoint you, Patience, but at present I intend to stay here. I am very comfortable, and I am making friends. We shall see plenty of each other by and by, you know, when I take you to live with me." She paused, and looked at the dressmaker. Try as she would to check it, the blood rushed at once to Patience's face, but she managed to keep silence, and Patty went on in the same smiling, deliberate way : "I think, you know, we had better begin as we mean to go on ; it is quite necessary to me to make friends of all kinds ; you are my friend already, so it is a waste of time to shut myself up with you."

Miss Coppock could not bear it—vanity conquered policy.

"But I could teach you so many things, Patty, and I can speak French, you know, so you would not be losing that advantage."

Patty had smiled, more quietly at first ; she had rehearsed this scene beforehand, while she was expecting Miss Coppock's

arrival, but she had not counted on so much resistance. The worst part of such a rehearsal as Patty's is, that we don't always consider all the provocations which may assail our self-possession, and the old spirit in the girl could not resist so good a chance of taking down her friend's conceit. For the moment she forgot her calm inflexibility : she burst out laughing.

"Yes, I listened to your French just now ; I heard you speak to Victorine as you came in. I know I can't speak easily yet ; but I'm really afraid I shouldn't mend my French by shutting myself up with you." She laughed again, and looked as if she expected Miss Coppock to join her. The mortified face before her might have moved pity, but Patty had made the most of her heiress-ship at the school, and she was accustomed to universal worship from Madame Mineur and her satellites. Miss Coppock looked shabby and dowdy, and seemed to have grown horribly presuming. No, there was no pity for her in Patty's heart. She meant to be kind and useful to Miss Coppock, but she was determined to teach her at once her true position.

"I don't want any more help than I have in the way of speaking French," she said more gravely ; "one of the teachers here, Madame de Mirancourt, devotes herself entirely to me out of class hours. Her father was a marquis or a duke, I really forget which"—Patty spoke loftily—"and she has been in regular grand society ; she tells me all sorts of things, and she is forming me, she says. I pay her extra, of course. And then among the girls I have friends too. The other parlor boarders are very different to me, you know ; they are only a pair of old maids. I like the school-girls better ; there's a Miss Jane Deverell, whose mother is Lady Jane ; and there's Elinor Dryden, whose uncle's quite a grand person ; and they are both so fond of me. They will be quite sorry when I leave them."

"I dare say." Patience thought she had detected a weak spot in this boastfulness about grand people, and she made another effort. She must get Patty all to herself, or some of these new friends would rob her of her prize ; besides, she had been Patty's absolute mistress once ; she knew all the girl's secrets ; surely if she tried hard enough she might re-establish

her power." "But then you see, Patty, these are ladies with an assured position ; just now you said yourself it was necessary for you to make friends and to be formed. Now, dear,"—Miss Coppock's voice grew coaxing,—“if we took a nice suite of rooms you might invite your friends, and they would bring others, and you would soon get a little society round you, and I could be useful to you in so many ways, Patty dear."

A faint sneer curved the full red lips.

"All in good time, Patience ; we have both of us something to learn first. I wish you to take French lessons, and also to learn to dress better." She kept her eyes away from Patience's face ; she wanted to say all she had to say without being turned aside by pity, or the ridicule she felt for her friend's want of tact. "I must let you see Madame de Mirancourt ; she is only a poor teacher, certainly, but she always looks so nice, and she knows her place perfectly. She never volunteers an opinion unasked, and that is so nice, you know. Poor thing, she wants to get the chance you have of being my companion ; but you see she is deformed, one shoulder is much higher than the other, and this has stopped her growth ; she is short and insignificant ; and you know, Patience"—Patty spoke quite cordially again—"you are really a striking-looking woman, and will be quite stylish when you dress better. Of course I am willing to pay all expenses. Now I'll ring and send for the address of the lodgings."

She turned away to ring the bell, and in that moment Patience's pride or else her good angel pleaded hard ; told her it would be better to toil more incessantly than ever, than make herself the slave of this girl.

But even while Miss Coppock stood writhing with mortification and trying to frame a speech which should assert her independence without giving mortal offence, Patty turned round. Her lovely blue eyes were full of liquid sweetness ; she was like a beautiful sunbeam. In that moment she had asked herself why she had sent for this overbearing, dull woman, so different from her gay, mocking Madame de Mirancourt, a woman she was already obliged to teach behavior to, and the answer had come.

Patience was as clever and as useful in her way as the Frenchwoman, far more

presentable, and without any dangerous power of repartee in case of a quarrel. But Patience was also industrious and self-denying, and De Mirancourt was greedy after presents ; and above all, Patience held the secret of Patty's former condition.

It seemed to the beautiful, flattered girl whose vanity had been so lavishly fed by all around her, that hardly any one would believe the story of Patty Westropp, even if Miss Patience told it ; but there was the doubt, and also there was her father with his rough country manner to give weight to such an assertion. Yes, she must have a useful friend and ally, and Patience would do for the post.

"Then I will for the future consider you my companion," she said, in the petting, caressing manner she had used at first. "Your lodging bills, living, and all that of course I shall settle ; and for the present and for your own personal expenses, I thought of 200 francs a month."

Victorine came in to answer the bell. Madame Mineur had sent the address for Miss Latimer, and Patience found herself driving away in the cab again before she could get resolution to refuse Patty's offer.

Why should she refuse it ? at any rate for the present.

#### CHAPTER XXIX.

##### NUNA AND HER LOVERS.

IT sounds very simple to repeat a well-known fact, and yet in that part of the human drama called love, unless we keep to fact, it is much easier to be unreal than it is to be probable. The truth in question is, that however well a man may love a woman, he is always aroused to a more precipitate course of action with regard to her by the existence of a rival, whether this rival be merely the creation of his own brain or a real cause of anxiety.

The dinner-party at the Rectory had so rekindled Will's longing to make Nuna his wife, that if he had been free from the necessity of entertaining Stephen Pritchard, he must have gone down to Ashton next day, and learnt his fate. And when his mother repeated Paul's words, he would have gone off to the Rectory and have left his cousin to amuse himself, only that the good lady informed him the Beauforts were by that time on their way to Beanlands, and would not return for two days or more.

How Will fumed and raved at his men during that interval, and contradicted his mother, and behaved himself altogether in a most refractory manner to all who came within the circle of his life, is not to be here chronicled ; only towards Stephen Pritchard did he maintain an outward show of decorum. Will, as has been said, had been to Harrow, and there had imbibed rather than grasped a certain fragmentary and misty notion of classics and mathematics, and it may be that during this process the amount of reverence due to talent may have in some inexplicable manner grown into his brain ; for although Stephen made no display of his cleverness, he could show the proof of it in type and cheques, and this last proof is, to such a mind as Will's, irrefutable : genius in rags to such a mind is a myth and a humbug, but genius, directly it gets its name before the public—in fact, has a name and produces gold—is genius, and is to be respected accordingly ; and as most people are of Will Bright's way of thinking, there is no use in preaching against it, only that genius, being a Divine gift, must be the same everywhere—living in comfort or dying in debt—adaptability being the one plank that changes its position.

In Stephen Pritchard were united the rare accidents of power and adaptability ; no wonder he imposed reverence on Mr. Bright.

"I tell you what, Stephen," Will said on the morning of the third day, "I'm going down to Ashton on business ; shall you object to look up your friend at 'The Bladebone' for an hour or so ?"

"Not at all. I rather think, Will, between ourselves, that we shall find Whitmore gone back to London ; he can't amuse himself, you know, as I can. He must be amused. I can't conceive what he does in that place : why, there's not even a shop."

"All the shops he wants, I fancy," said Will, savagely. "Dennis Fagg gets capital cigars, and the ale at 'The Bladebone' has a reputation ; come, Steeve, I'm not going to have our village run down."

The dog-cart was brought round, and after some "chaff" fully returned between Mr. Pritchard and Larry, the cousins took themselves to Ashton. Mr. Bright put up at "The Bladebone," and then, leaving Stephen to find out his friend, he went off alone to the Rectory.

It was the morning after the Rector's return from Beanlands, and he had gone to visit the poor cripple who had been ill when he left home. Nuna too had gone out to see little Lottie, a fast friend of hers since her accident.

Mr. Bright therefore found Miss Matthews alone.

"I wonder why Nuna dislikes her," Will thought ; "she looks so very lady-like, and her hands are so white. I should have fancied her quite a gentle, elegant creature." The word elegant, according to Mr. Bright, covered a multitude of sins, only he was not choice in applying it.

"I hope dear Nuna will be in soon ; it was so extremely kind in you to send her that curiously beautiful plant. I'm sure she values it extremely ; she has it upstairs in her own room."

A warm glow of pleasure rose in his face ; his fear had been that Nuna might reject the gift ; he could not help building on this foundation, but he waited for Miss Matthews to speak again.

"Why don't you come and see us often ?" she said. "If I were not afraid of vexing you, I would tell you what I used to think last autumn."

She laughed in such a conscious way, that Will began to hate her : she had made him nervous and uncomfortable.

"What did you think ?"

"Oh, nothing to vex you ; only I fancy, had I been a certain young lady, I might have felt myself a little neglected, especially when I gave no discouragement."

Will's heart beat with the wild tumult in which we are plunged by an unlooked-for discovery.

"Please to speak plain, Miss Matthews ; you saw a good deal of Nuna then. Do you mean, that she said she took any pleasure or interest in seeing me ?"

He got up and stood before her.

Miss Matthews laughed, but she looked admiringly at his handsome, honest, troubled face.

"What noble creatures you men are in your humility," she said ; "so blind to your own merits, setting aside all other advantages." Much as she wanted to hasten on a marriage between her listener and Nuna, she could not resist the side hint that these other advantages might have weight in her young cousin's eyes.

"You have not answered my question." Will spoke in a downright, determined

way ; he was not going to let Miss Matthews make a fool of him, though he was excited.

" Well "—Miss Matthews smiled placidly down on her hands ; she had not the smallest sympathy with Will's passion, she only wanted to be sure of it—" I have, of course, nothing definite to tell you ; you do not expect me to repeat Nuna's secrets, do you ? " Here she looked up in what she meant to be an arch, playful manner, and met such a fierce frown in the blue eyes gazing down on her, that her words came considerably faster. " I can only tell you that she always looked pleased when you came, and more than once I heard her say, ' What a time it is since Will has been here ! ' "

Both Will's large, shapely hands had got entangled in his tawny beard. " Are you sure of this ? " he said, damaging the beard in his agitation.

" Yes, quite sure ; " and then Miss Matthews' proprieties were really quite disturbed ; this simple Cymon pulled his hands out of the tangle he had been making, and nearly smashed her delicate fingers in his firm clasp.

" Thank you, thank you, " he said ; " I can't tell you how happy you have made me."

Miss Matthews was so startled that she thought he had better be left to cool, there was no knowing how far his gratitude might carry him.

" I will go and see if Nuna has come in ; she only went down the village, " she said, and she got up from her chair.

Will snatched up his hat.

" I'll go and meet her, don't you trouble ; " and then he thanked Miss Matthews again, and went away.

" Dear me, what a very vehement person, " said the spinster ; " my wrist is red still, and my knuckles quite ache. But he is quite the sort of person for Nuna."

Fate, or rather the Fates, all three sisters, must have been hard at work that morning, trying to complicate the tangle of Nuna and her lovers. The Fates thus arranged that, as Mr. Bright came in sight of the cross roads beyond Lottie's cottage, he saw Nuna coming out of the cottage, and he also saw, walking leisurely along one of the cross roads, with his eyes bent on the ground, Mr. Paul Whitmore.

Will came to a sudden halt. Nuna did not see him yet, but she was coming to-

wards him with graceful, springing steps, each one of which took her farther from the artist, and it was possible that Mr. Whitmore might pursue his way along the cross road, unconscious of her presence. Will fancied Nuna must have seen his rival, and it cheered him that she was hurrying away from Paul.

She saw Will, and her pace slackened.

He was beside her in a moment, and then turned and walked with her towards the village.

" I hope you enjoyed your visit to Beanlands, " he said.

Nuna did not know how she answered. She had seen Paul, and she had also seen that he was unconscious of her presence. Following her impulse of sudden shyness, she hastened away from all appearance of seeking him, and then, too late to turn again, saw that she had hurried forward to meet Will.

" Why am I such a weak coward ? " she thought. " Why don't I leave Will and go back and meet Mr. Whitmore ? How can I avoid him when my heart is dragging me back every step I take ? "

But almost with the thought came the sound of footsteps behind her, and Paul passed rapidly on the farther side of the road. He raised his hat and nodded smilingly both to Bright and to Nuna. She saw he did not look vexed. Either Paul did not love her and was indifferent to her conduct, or else he trusted her fully ; but neither of these solutions gave Nuna peace. She knew that if she had met Mr. Whitmore walking with another woman she could not have given the smile she had just seen in his eyes. She was utterly miserable.

" Nuna "—Will felt encouraged by her silence—" I want you to listen to me ; will you listen patiently ? "

" Yes. " But Nuna's thoughts were following Paul to Ashton.

" Years ago "—Will cleared his throat as if he were going to tell a story—" when you were still a little girl, do you remember climbing a tree ? You had sent me up first to look at a bird's nest. You always ruled in those days, Nuna, and then you tried to come up by yourself and see the young birds, and you fell and twisted your foot. Do you remember ? "

Will spoke as if it were a matter of deep interest, and Nuna smiled. That past which in his memory formed a

mosaic picture, each event clearly marked out, yet uniting to form a harmonious whole, was to her a half-forgotten dream. Nuna lived in the future ; the past held no golden days for her, and till lately the present had been barren also. She did not try to call up this special recollection ; she only thought Will very tiresome.

"I dare say you picked me up and brought me home," she smiled. "I know you used to be very kind and good to me. You have always been like a brother to me, Will."

At the words a warm flow of gratitude welled up in Luna's heart ; in that moment she was nearer doing justice to her old playfellow than she had ever been in her life. How he had loved her, and how little love or kindness she had shown in return ! The sudden revulsion from the dislike with which she had seen him approach, and the weariness which had succeeded, threw her into that dangerous state for a woman with warm deep feelings, and a quick impulsive nature—a state of remorse which prompted reparation in looks and words. So that her eyes were full of tenderness as she raised them to his, and her lips trembled.

"I, who so prize, who pine for want of love," she thought, "how often I have inflicted sufferings on poor Will."

Will's heart throbbed violently, but the word brother jarred him. "Ah ! but I want you to remember this special day, Nuna. I think you could remember if you tried." Will was keeping his voice calm and steady ; spite of the encouragement in her eyes, he was resolved not to be over-hasty this time. "Don't you remember your foot was painful, and so I waited a little before I took you home, and you said—Nuna, do you recollect what you said ?"

A blush flitted across Nuna's face ; a vague memory was stirring, but the blush increased Will's hope ; he went on eagerly : "You said, 'You take care of me like a husband, Will. I will be your wife some day.' Don't laugh, Nuna ; I can't bear it. Despise me if you choose, but leave those days bright and true. Ah, Nuna, in those days I was all you wanted, I was everything to you. Can't I be the same now ?"

He spoke passionately. His handsome face glowed with the love he was burning

to offer, and then he almost stamped on the hard road to think how completely he had let himself be carried out of the calm deliberate part he had resolved on.

They had reached the village, but Will did not care who heard him ; he forgot all his customary reticence. He did not care for the blacksmith who stood at the door of his smithy, with bright eyes and brawny arms, gazing on the young pair ; nor yet for Mrs. Tomkins, the laundress, peeping through the gaps in her garden hedge as she hung the clothes up to dry. Will did not care if the whole world knew that he loved Nuna. He was not ashamed of it. But Nuna shrank from these busy eyes. It seemed as if the careful, decorous man and the dreamy, unobservant girl had changed places. Nuna's nature was thoroughly roused ; this must be ended once and for ever. It was sheer cruelty to give Will the slightest hope that she could return his love.

"I want you to listen to me," she said, so earnestly that he was taken by surprise. "Don't talk any more here. Come down Carving's Wood Lane ; we shall be quieter."

His heart sank in his breast like a stone. He knew her so well that this told him all was over. But still he clung to hope. There was silence till they were under the leafless far-stretching oak branches, out of sight of the high road.

Then Nuna spoke fast and earnestly. "Will, you are making a mistake. You have cared about me as a sister till you think you love me. But indeed I could never make you happy." Will stopped and took both her hands to make her stop too. "Hush, Will, dear Will : I listened to you so long, won't you listen ? do let me tell you all I want. I can never love you more than I do now, and next to papa I do love you, Will. Why don't you be content, and let us be dear friends always ?"

Will's heart leapt up again.

"I never said I wanted much love ; if you love me next your father, I am willing and thankful to begin on that. Oh, Nuna, if you could see how I love you, how I long for the least love from you !—darling, you must take pity on me ; you must be my wife."

The last word changed her feelings. As he said it, she drew her hands away.

"You are unreasonable, Will : you have

known me so long that you ought to believe me. Do you think that if there was the least hope of my changing, I would not give it to you? Do you think I am ungrateful for your love? No, indeed, Will; but it would be so false to give you any hope. I never, never can love you in the way you want to be loved." She tried so much to speak convincingly that her words sounded cold.

The eager light faded from Will's blue eyes. He stood there, pale, and yet with a hunger in his face that made Nuna shrink away from him.

He saw that she so shrank.

"O God, it is too hard!" he said hoarsely. "What have I done to deserve this from you, Nuna, of all women? I am despicable then; there is something in me you loathe—impossible for you to love?" He shook with the violence of his passion.

Nuna stood looking at him with a scared white face, struck dumb by his agitation. The poor child had never seen a man so deeply moved—she was utterly terrified. She despise Will! how could he think it? Surely he might hope to win the love of some one very superior to herself; she must show him this. And then the girl's pure, generous heart came to help her; she would trust Will—it would wound him less to know that she had no love left to give, than to feel himself unworthy of being loved at all. The effort was painful, but just then pain was a relief to Nuna; it brought her into sympathy with poor Will.

"Will,"—she spoke very humbly—"you wrong us both by saying this; how could I despise you? I said just now that next to my father I loved you. In all these years have I ever deceived you? I will give you a proof of love. I will tell you what even my father does not know—that I have no better love left to give."

Will had stood quite still; he knew every word that was coming; he seemed to have heard all this before in some far-off time; even after Nuna ceased speaking, he stood silent, his eyes fixed sternly on her as if he were waiting to hear a yet fuller revelation.

He had no gratitude in that moment for her frankness; his only defined sensation was a longing to meet Paul Whitmore, and try, man to man, which had the best claim to win Nuna's love.

And Nuna was too much moved out of

herself to soothe him as a wilier, cooler woman would have known how to soothe.

"Let us part friends, Will,"—she put out her hand, and looked imploringly at him,—"you have been such a good friend to me."

But Will would not take her hand in his.

"Friends! I hate friendship. Do you remember what is said about asking for bread, and giving a man a stone?—that's what you have done, Nuna. I asked you for your love, and you won't give it, but I'll not have your friendship; you'll offer me next the pity of that confounded artist who has stolen your love away from me. You needn't look frightened, Nuna, I'm not going to tell your secret; though, if you take my advice, you'll not keep it secret, you'll have it all out as soon as you can." Such a look of distress came in her face, that he softened—"Good-bye, Nuna; I know I am not good enough for you, but no more is he: no one ever could be worth your love." He stopped and looked tenderly at the blushing face, blushing with the bitter humiliation of her confession: "Nuna," he said gently, "you may live to wish you had married the man who loved you, instead of the man you love yourself."

#### CHAPTER XXX.

##### PAUL'S CONFESSION.

MRS. FAGG rarely stirred abroad unless it was to go to church. The most cogent reason for a habit being seldom that which is acknowledged, it is possible that Mrs. Fagg's pretext of only having one bonnet at a time was not the true cause of her stay-at-home habits. A Sunday bonnet, in the opinion of the mistress of "The Bladebone," was an article to be kept specially for going to church in, not to be in any way used on week-days. Perhaps she thought that secular sights and sounds had some mysterious power of lingering in the bows and quillings, and of whispering distractions amid her devotions. The bonnet was duly replaced in its tissue-paper wrappings on her second return from church, and stayed there till the next Sunday.

Still Mrs. Fagg loved air, and therefore when she was not wanted in the kitchen or to superintend the servant's housework, she was fond of standing at the entrance of "The Bladebone," usually with a duster

to hem, as she took her accustomed airing. When the Rector came back from visiting the poor cripple, Mrs. Fagg stood leaning against the door hemming a red pocket-handkerchief with white spots, for the use of her darling Bobby. The needle flew in and out as deftly as if Mrs. Fagg had never anything else to do but needle-work. Arachne has a way of sneering at Calliope. "Bless your heart, my dear, you'll never sew neatly; you must give all your time to needlework if you want to excel in it." Calliope only smiles, perhaps with a little contempt, but she never wastes words in answering. She knows that if the brains are cultivated, the fingers will move deftly, although the maxim may not admit of a reversed application. It may be well for Arachne's destined spouse that the fair creature so wholly bent on stitching would remember that brains were given to use just as much as fingers were, and that every woman has about the same amount of talent, of one kind or another, if she only chose to exert it, and keep it free from rust.

"Good morning Mrs. Fagg," said the Rector; "so I find you have your artist lodger again."

"Yes, sir, we have." Mrs. Fagg spoke dryly. Since her conversation about Mr. Whitmore with the Rector, more than one circumstance had combined to prove that her lodger's acquaintance with Patty had gone to what she considered "lengths." "Yes, sir, but I don't somehow think he'll be long with us; he don't sketch as he did last time, he seems altogether duller like."

"Ah, he had better go over to Gray's. I fancy Ashton must be dull for a single man."

Mrs. Fagg put her head a little on one side, and looked sharply at her pastor.

"You see, sir," she said, "there's no amusement now in going down Carving's Wood Lane."

The Rector shook his head.

"Ah, Mrs. Fagg, you were hard on poor Patty. I am afraid she had not many friends."

"And no wonder, sir!" The matron spoke indignantly. She had finished hemming the red handkerchief, and she folded it up in exquisite squareness, giving it an admonitory pat at each fresh folding. "There are them that'll take away a neighbor's character while they go on

praising all the time; that's like stroking a cat while you make off with her kittens. That's not my way, sir, and I should not trouble to move my tongue against Patty Westropp only for something I was told yesterday."

"Well, but, Mrs. Fagg, don't you know we must never believe half we are told in the way of scandal? Why, suppose any one were to come and tell me Dennis was lazy, you wouldn't like me to believe it, would you?"

The Rector smiled, with an attempt at mischief in his quiet blue eyes.

"You couldn't, sir, you'd know better." Mrs. Fagg paused, and thought a minute before she went on. "No one could call a man lazy who works as hard at reading as Dennis does; why, it's my belief he gets through every column of the news, down to the coal advertisements, and all in one day, and to hear him talk Parliament speeches is most improving to them as can understand. A lazy man does nothing at all, sir. No, sir, every one's got his line as plain marked out as the stripe on a donkey's back, and the folks as don't get on in life is them as takes to the wrong line; and it's my belief that girl Patty never took to the right from the beginning; she can't go straight now, sir, it ain't in reason to expect it. Do you know where she is, sir, and what she's doing with her fortune?"

"No, I wish I did." Mr. Beaufort was surprised at the landlady's excitement. Mrs. Fagg was known to have prickles on her tongue for those who deserved them; but she was not a gossip, and it was most unusual, and it seemed to the Rector most uncalled for, that she should persist in this attack on a motherless girl. "Oh, women, women, you are all alike," he thought, "if one among you happens to be prettier than the rest."—"I wish," he said, "I could find out what has become of that girl and her father."

"Well, sir, it was that made me speak. I thought you was trying to find out. I was told that you had thought of inviting Patty to stay at the Rectory, and be a friend like for Miss Nuna. No, sir, you needn't be afraid I believed it, I knew better; but I heard yesterday that Patty said to a person in Ashton before she went away, that she shouldn't have anything to say to Miss Beaufort after a bit; she meant to be a quite better sort of

lady than Miss Nuna ; and this did put my back up, it did. When I heard, sir, as I did, that you'd been over to Guildford making inquiries, I was determined to tell you about it. To think of the notice Miss Nuna showed that girl ! Why, she used to speak to Patty Westropp more than any one else in the village. It's downright shameful ! And that's not all, sir. You weren't pleased last autumn with what I said. I knew ! I saw plain enough you thought me as spiteful as a toad."

"Really, Mrs. Fagg, I am not aware —" Mr. Beaufort shrank from this personal attack.

"No, sir, no doubt you were not aware —you'll excuse me saying it—no one ever is aware of half their feelings while they last, and very often never, if something unlooked-for turns up at the time and wipes 'em out ; but that girl Patty, at that very time I was talking to you, either then or the day before, or most like both, was letting herself be regularly courted by this lodger of ours"—Mr. Beaufort gave a sudden nervous look of inquiry to the upper window—"oh, it's all right, Mr. Whitmore's out walking, sir, and besides, I don't blame him half nor a quarter what I blame the girl ; if Mr. Bright chose to speak, he knows all about it, for he was just at the corner of the lane when the person as told me was on the common."

Mr. Beaufort felt annoyed and irritable ; his own encounter with Paul seemed to take a deeper shade under this new tale, and it was specially vexing that Will, of all people in the world, should be cognizant of Mr. Whitmore's conduct with Patty Westropp.

"Well, I must bid you good morning," he said. "You know young men will admire a pretty face ; we can only say it is perhaps a good thing that no worse happened. Take my advice, and never believe half you hear, Mrs. Fagg ; no, nor three-quarters ; and, above all, don't repeat it."

He had relieved some of his vexation by giving this pastoral advice, but he could not shake it all off. He had been very severe on misdemeanors of this kind among his flock, and it was mortifying to have given public countenance to a stranger while he was actually carrying on this sort of acquaintance with Patty. Mr. Beaufort chose to reprove Mrs. Fagg, but

he believed Paul's conduct to have been much worse than it really had been. He called to mind now his first meeting with the artist—even then he was walking with Patty ; he remembered how coldly the young man had accepted his invitation to spend that first Sunday at the parsonage, and last of all his final interview with Paul outside Roger's cottage.

He could not understand how, in the face of all this, he had asked the artist again to his house—above all to meet Will Bright.

Mr. Beaufort had been struck with the visible coolness between the two young men, but Mrs. Fagg's words seemed to explain it.

"I must say Will might have told me ; so strict as he is, he must have known that a man who sets public opinion at defiance in such a way as this is not the sort of person to be countenanced by a clergyman."

It was a relief to be able to blame some one besides himself, but Mr. Beaufort was still in a very perplexed state when he reached home.

It has been said that the Fates had been working at cross purposes this morning. Paul Whitmore had hurried past Nuna to put into effect a resolution—a resolution which had been quickened to immediate action by the sight of the Rector's daughter walking with Will Bright. Paul did not doubt Nuna ; he had read her love for him in that brief glance yesterday ; but she must be wholly his, and he could not endure that Will should even approach her. He meant to have seen Nuna once more alone before he spoke to her father, but this meeting changed his plans, and he hurried on fast to seek Mr. Beaufort.

The Rector was not in. "He can't be long now, sir," said Jane ; "Master never do take long walks."

"I want to see him on business, so I can wait, I suppose.

"Will you please walk this way, sir ?"

He followed into the Rector's study. There was not much in it likely to attract Paul Whitmore—shelves of dully-bound volumes of English divinity, other shelves full of Latin and Greek and even Hebrew volumes, for Mr. Beaufort was a scholar ; treatises on cows and pigs and horses, and oil-cake and farming ; county maps, and histories, and peerages, and books on

jurisprudence, on the laws of franchise, and, scattered among these, books of ready-made quotations and extracts ; it was a library of bricks and mortar rather than one of gems. Mr. Whitmore turned impatiently from the book-shelves ; if he had persevered he might probably have found something more interesting among the books, but he hated dulness, and shrank from it as the dog shrinks from his chain.

He had begun to look at the pictures on the walls, when a likeness arrested him ; it was a water-color drawing, a likeness of Mr. Bright, taken when he was some years younger, but still very like him ; the color was hard, and the drawing stiff and faulty, but there was character and life in the portrait. Mr. Whitmore bent down to examine it more closely, and he saw in the corner the initials N. B. His thoughts flew back to the little incident at the cross roads.

"If Mr. Beaufort is not in in another minute, I must go and find him." This was said very impatiently. He longed to go back and break up the meeting between Will and Nuna. Was he so very sure of her himself? and he thought of Will's handsome face and stalwart frame with something very like contempt.

"Just one of the yellow-haired giants women delight in. Ugh ! carcases—when Nature is so over-liberal outside, she seldom does much in inside furnishings."

And yet Nuna had looked so true when she said she was not likely to leave the Rectory, and Mrs. Bright's confidence had shown that it must be her own fault if Nuna were not mistress of Gray's Farm. Still the torment was growing insufferable.

The Rector came in at last, less smiling than usual. Mrs. Fagg's discourse was fresh in his head, and when Jane told him who was waiting for him, he felt more than ever vexed that he had made the Rectory an open house to this Mr. Whitmore. We are never so weak for our own interests as when pleading with all our heart to a prejudiced listener. It was very unfortunate for Paul that his usual calmness had been disturbed ; if his purpose had been less heartfelt, he would have been less impatient in beginning on it ; but he only thought of securing Nuna to himself ; he made the confession of his love in an abrupt and hurried manner—

and manner was omnipotent with the Rector.

Mr. Beaufort got up from his chair, and looked at his visitor as if he thought him insane. "I trust you have said nothing of this to my daughter."

His stiff tone did not daunt Paul ; he had made up his mind to opposition.

"I have not spoken out, but I think your daughter knows that I love her."

The Rector's pride was severely shocked ; his prejudices had not quite enabled him to determine that Paul was a gentleman, although his instincts acknowledged him to be one ; and that a person of this kind, a person who might perhaps move in a lower sphere of society, should have had both the daring and the opportunity to pay court to his daughter, took away for the time all his power of reply. Mr. Beaufort's knowledge of that which passed in the world was gathered from books and the dicta of a few country neighbors, people with minds on a dead level, and ideas which had been sprouting on the same unchanged stock for generations without a suspicion that they had become obsolete. The only correct and safe opinion (Mr. Beaufort's creed held but one on any subject) was to be found in the newspaper cherished by his special class, and in Mr. Whitmore there was a way of thinking for himself, a something which did not bear the stamp of class at all. Mr. Whitmore said and did things in an original, out-of-the-way manner, which found no duplicate in the stereotypes of the rectorial mind. It was most outrageous that such a person should aspire to Nuna.

"Then you must excuse me,"—Mr. Beaufort looked like a poplar-tree for stiffness,—"if I tell you that you have acted in a most unheard-of and unwarrantable manner."

Paul smiled ; he did not think this quiet, gentle-spoken man would have flown off in such a womanish temper.

"Unwarrantable perhaps, but not unheard-of. You were young yourself once ; can't you make some excuse for my overhaste ?"

"I am afraid, sir, you have appealed to a most ineffectual sympathy. I can safely say that nothing could have tempted me to offend so grievously against the usages of life."

He was too angry to ask how Nuna had received Mr. Whitmore's admiration ; he

wanted to dismiss the subject finally, without any more detail, and he went on just as if he were driving a ploughshare over every thought and feeling that might be held in opposition to his.

"I must beg to hear no more about this, and I think you will see that it is impossible I can continue to receive your visits at my house."

While the Rector spoke Paul had felt his own superiority to the man who was thus ignoring all right and justice in his treatment of him. There was a slight flush on his dark face, but his words came with the calm weight that compels deference.

"I think I must ask you to hear rather more, or at least, to give me some reason for your decision. Is your daughter to have no voice in the matter?"

"We will keep my daughter out of the question altogether, if you please." Mr. Beaufort's face flushed. "She is much too young to decide for herself, and too well brought up, I hope, to think of adopting such a course. If I had no other reason, it would be sufficient that I know far too little of you to entertain such a proposal."

"That is a reason which can be so soon got over. I will stay at Ashton as long as you please; and if you will allow me to explain my position and means of living, I have every hope that you will be satisfied."

Paul spoke temperately still, but the flush in his face had deepened.

His manner restrained the Rector, but still Mr. Beaufort felt it was useless to temporize, worse than useless for this wild young fellow to think he could have Nuna for the asking. He waxed his hand.

"We need not discuss your position at all. If you had followed me, Mr. Whitmore, you would have noticed that I said if I had no other reason: unfortunately this is not the case; I have another objection, but it would be much pleasanter for us both if you would let the matter end here."

Paul bent his dark eyes searchingly on the fretful, anxious face before him.

"You don't understand me," he said, bluntly; "I love your daughter with all my heart, and you have said nothing yet to prove that I am not fit to win her love. I don't say I am worthy of her; no man ever yet was worthy of a pure, good wo-

man's love; but unless you make me believe that it is impossible for me to win your daughter, I tell you, with all due regard for you as her father, but still I tell you frankly, I don't mean to give her up."

Paul spoke impetuously, and Mr. Beaufort waved both his white hands as if he would soothe away the outburst.

"I consider the reason I have already given, the lightness of our acquaintance, a very sufficient one, but it may perhaps settle the matter more completely if I add, as a clergyman, that you are not quite the person I should choose for my daughter's husband."

"You have implied that before,"— Paul was pale enough now, and he spoke haughtily; "but I have a right to ask you to say plainly what you mean."

"You may have a right, but I question your wisdom in asserting it; there are things best left unexplained, still—"

Paul looked impatient, and the Rector went on faster.

"I can tell you if you wish. When you were here before I objected to your acquaintance with a young woman in a different class of life from your own."

"Really."

"Will you allow me to finish? I am aware that young men see no harm in such intimacies; they only consider their own amusement; but I believe incalculable mischief is done in this way. Such notice turns a girl's head with vanity, unfits her for association with her equals, and, I fear, where time and opportunity prolong the acquaintance, still worse harm ensues. I dare say you are surprised, but you asked me to give you a reason, and I tell you plainly that I think that if this girl Patty had still been in Ashton, it is quite possible you would have renewed this very objectionable intimacy."

At first Paul's haughty annoyance had nearly hurried him away without offering any explanation, but the Rector's earnestness prevailed.

"I should have done nothing of the kind. You have spoken out to me, Mr. Beaufort, and I will be quite frank with you. I had a foolish infatuation for Patty, but there was nothing criminal in my feelings for her." He spoke very frankly and simply.

"I dare say not." The Rector almost wrung his hands in his desire to be rid of

the subject, it jarred his refinement so painfully. "I have no doubt there was no harm in your intention, but the fact remains."

"Your knowledge of it; but that is founded on a mistake. I was so madly in love with Patty that I asked her to be my wife, and she refused me."

Mr. Beaufort literally staggered back against the writing-table. Nothing perhaps masters us so completely as the recognition of some quality in another of which we feel ourselves incapable. It was marvellous to hear Mr. Whitmore say that he meant to make Patty his wife, but it was literally astounding to hear him confess that he had been rejected by this village girl.

For a few moments this grand frankness overwhelmed the Rector with astonished admiration, and then a very different feeling brought him back to self-complacency. How dared this man even look at Nuna with the notion of making her a successor to Patty Westropp?

He grew very red in the face indeed, with virtuous indignation.

"You have said quite enough, more than enough, to justify me in forbidding any attachment between you and my daughter. I could not receive a man as a son-in-law who could dream of marrying such a person as Patty. Really, Mr. Whitmore, for both our sakes, I must ask you to end this interview."

He was amazed to see Paul smile.

"I am going away," he said, "but I am not going to give up the hope of your daughter's love, Mr. Beaufort. I shall write to her: I consider myself justified in writing to explain my conduct in leaving Ashton so abruptly. I go away now in deference to your wishes, but I shall come down here again soon, and if I then have reason to think I have any hope of success, I shall ask you to reconsider your determination."

He would shake hands, ignoring altogether the Rector's stiff bow of dismissal, and then he went away.

"Really,"—the Rector threw himself back in his easy chair in a state of nervous agitation,—“that is the most extraordinary person I ever met with in all my life.”

(To be continued.)

St. Paul's.

SEDAN.

THE looms are broken, the looms are hushed,  
And a broken weary man  
Sits near a child with fever flushed,  
In a cottage of Sedan.

The mother starved with him, the weaver,  
To feed their little child,  
Who lies now low with famine fever,  
That slew the mother mild.

The room is desolate; the store  
Has dwindled very low:  
All a poor housewife's pride of yore  
Was plundered of the foe.

And a father cowers over gray  
Woodashes barely warm;  
He feels the child is going away  
In the pitiless pale storm.

He knows an Emperor lost a crown  
Here in his own Sedan,  
And he knows an Emperor gained a crown,  
The solitary man!

He hears the voice of a world that sings  
 The spectacle sublime !  
 Yet only heeds one life that clings  
 To his own a little time.

I wonder, if the Christ beholds  
 With eyes Divinely deep,  
 Whom to his heart He nearest holds,—  
 The kings, or these that weep !

Who seem more royal and more tall,  
 In calm pure light from God—  
 These crowned colossal things that crawl,  
 Or lowly souls they trod ?

These purple laurelled kings we hail  
 With banner and battle blare,  
 Or him who writhes beneath their trail,  
 A pauper in despair—  
 Conquered and conquerors of Sedan,—  
 Or a dying child and a starving man ?

RODEN NOEL.

St. Paul's.

THE SUN'S ATMOSPHERE AT LENGTH DISCOVERED.

So much attention was directed to the solar corona during the discussions which preceded and followed the late eclipse, that a discovery of extreme importance—but not at all associated with the corona—has received far less attention than it deserves. The discovery I refer to is, in fact, more important in its bearing on problems of solar physics than any which has been made since Kirchhoff first told us how to interpret the solar spectrum. It is also intimately connected with the labors of that eminent physicist. I propose briefly to describe the nature of the discovery, and then to discuss some of the results to which it seems to point.

Astronomers have long seen reason to believe that the sun has an atmosphere. And by the word atmosphere I mean something more than mere vaporous or gaseous masses, such as the prominences have been shown to be. A solar envelope, complete and continuous as our own atmosphere, seems undoubtedly suggested by the appearance which the sun's image presents when thrown on a suitably prepared screen in a darkened room; for then the disc is seen to be shaded off continuous towards the edge, where its brilliancy is scarcely half as great as at the centre. The phenomenon is so readily seen, and so un-

mistakable, that it is with a sense of wonder one hears that Arago called it in question. To use the words of Sir John Herschel, "the fact is so palpable that it is a matter of some astonishment that it could ever fail to strike the most superficial observer." And, again, not only the light but the heat of the outer portions of the sun's image has been estimated. In this case we do not depend upon the perhaps fallible evidence of the eye, but on that of heat-measuring instruments. Fr. Secchi, measuring the heat of different parts of the solar image, has found that of the part near the centre nearly double that from the borders. Lastly, photography gives unmistakable evidence on the subject.

Now, when Kirchhoff discovered the meaning of the solar spectrum, it seemed clear to him that he had determined the nature and constitution of the solar atmosphere. Let us consider the nature of Kirchhoff's discovery.

He found that the dark lines across the rainbow-tinted streak forming the background (as it were) of the solar spectrum, are due to the action of absorbing vapors. The vapors necessarily lie *outside* the source of that part of the sun's light which produces the rainbow-tinted streak. If

those vapors could be removed for a while, we should see a simple rainbow-band of light. Or if the vapors could be so heated as to be no less hot than the matter beneath them which produces the rainbow spectrum, they would no longer cause any dark lines to appear ; but being cooler, and so giving out less light than they intercept, they cut out the dark spaces corresponding to their special absorptive powers. To use Mr. Lockyer's striking, though perhaps not strictly poetical, description of their action, these vapors "gobble up the light on its way to the observer, so that it comes out with a balance on the wrong side of the account." Each vapor produces its own special set of lines, occupying precisely those parts of the spectrum which the vapor's light would illuminate if the vapor shone alone. For these vapors, notwithstanding their action in intercepting or absorbing portions of the sunlight, are themselves in reality glowing with a light so intense that the human eye could not bear to rest upon it. If we could examine the vapors we supposed just now removed from the sun, we should obtain the very lines of light which are wanting in the spectrum of the sun.

When Kirchhoff had recognized in this way the presence of absorptive vapors around the real light-globe of the sun, he judged that they form the solar atmosphere. Because, although his mode of observation was not such as to assure him that these vapors completely envelop the sun, yet the telescopic aspect of the sun, and especially that darkening near the edge to which I have just referred, seemed to leave room for no other conclusion. But at this stage of the inquiry Kirchhoff fell into a mistake. He judged that the solar corona was the atmosphere which produced the solar dark lines, as well as the darkening of the sun's disc near the edge. The mistake is one which, as it seems to me, he would have avoided had he taken into account the enormous pressure at which an atmosphere so extensive as the corona would necessarily exist under the influence of the sun's mighty attractive energies. It may easily be shown that if the outer parts of the corona were as rare as the contents of our so called vacuum-tubes, or even a thousand times rarer, yet according to the laws which regulate atmospheric pressure, the density would attain even at vast heights

above the sun's surface to many hundred times that of our heaviest gases. The pressure would, indeed, be so great that we can see no way of escaping the conclusion that, despite the enormous heat, the gases composing the imagined atmosphere would be liquefied or even solidified.

When the observers of the Indian eclipse of 1868 found that the colored prominences are masses of glowing hydrogen, with other gases intermixed, and when the prominence-spectrum was found to show the hydrogen lines as these appear when hydrogen exists at very moderate pressures, Kirchhoff's view had to be abandoned as altogether untenable. Wherever the vapors exist which produce the solar dark lines, they are undoubtedly not to be looked for in the corona.

But there the lines are. The absorptive action is exerted somewhere. The question is—Where are the absorptive vapors ?

At this stage of the inquiry a very strange view was expressed by Mr. Lockyer—a view which appears to have been founded on a slight misapprehension of the principles of spectrum analysis. He put forward the theory that the absorptive action takes place below the level of the sun's surface as we see it.

But observations made by Fr. Secchi at Rome pointed to a view so different from Mr. Lockyer's, as to lead to a controversy which filled many pages of the *Comptes Rendus*, of the *Philosophical Magazine*, and of other publications—a controversy conducted, as too many philosophical discussions have been, with a somewhat unphilosophical acrimony.

Fr. Secchi had noticed that when the very edge of the sun's disc is examined with the spectroscope, the dark lines disappear from the spectrum, which thus becomes a simple rainbow-tinted streak. He judged, accordingly, that the absorbing atmosphere exists above the sun's real surface ; for he believed that just at the edge the bright lines corresponding to the light from the vapors themselves so nearly equal in intensity the light of the solar spectrum, that no signs of difference can be detected ; or, in other words, that the dark lines are obliterated. On the other hand, the glowing atmosphere cannot, he argued, reach much above the sun's surface, since otherwise the spectroscope would show the bright lines belonging to

that atmosphere's light. Now, no such lines are visible. So far as the spectroscopic evidence is concerned, it would appear as though immediately above the sun's surface as we see it, there came the *sierra*—that low range of prominence-matter, which, strangely enough, some have regarded as an atmospheric envelope. The spectrum of the *sierra* shows beyond all question that, like the prominences, this region consists of glowing hydrogen, mixed up with a few, and at times with several, other gases, but certainly not capable of accounting for the thousands of dark lines in the solar spectrum. It seems quite clear, also, that the *sierra* is not of the nature of an envelope at all.

Over the narrow layer which Secchi supposed to exist between the sun's surface and the colored *sierra* began, and presently waxed warm, the controversy above referred to. Fr. Secchi was positive that he could see the narrow continuous spectrum on which he founded his view; Mr. Lockyer was equally positive that the worthy father could see nothing of the kind. Fr. Secchi urged that his telescope was better than Mr. Lockyer's, and that he worked in a better atmosphere; Mr. Lockyer retorted that his spectroscope was better than Fr. Secchi's, and that the imagined superiority of the Roman atmosphere was a myth. Something was said, too, by the London observer about a large speculum, which was to decide the question, though this mirror does not seem to have been actually brought into action. Both the disputants expressed full confidence that time would prove the justice of their several views.

Soon after, an observation was made by Mr. Lockyer, which seemed to prove the justice of Fr. Secchi's opinion; for, on a very favorable day for observations, Mr. Lockyer was able to detect, *not* the narrow rainbow-tinted spectrum seen by Secchi, but a narrow strip of spectrum belonging to the region just outside the sun's edge, which showed hundreds of bright lines. Here seemed to be conclusive evidence of that shallow atmosphere of glowing vapors in which Fr. Secchi had faith. But Mr. Lockyer interpreted his observation differently. The presence of these vapors on this particular occasion he regarded as wholly exceptional, and the cause of the exception he held to

be the energetic injection of vapors from beneath the surface of the sun.

At about this stage of the controversy I had occasion to consider the problems associated with the physical condition of the sun and his surroundings; and although I took no part in the discussion between Fr. Secchi and Mr. Lockyer, I expressed (in papers which I wrote upon the subject) opinions which agreed with the views of the Italian astronomer. It is necessary for me to present in this place my own reasoning on the question at issue, because it not only serves to introduce the special observation made last December, by which the problem has been finally solved, but also presents certain considerations which must be attended to in interpreting that observation.

In the first place, I noted that the darkening of the sun's disc near the edge, or rather the marked nature of that darkening, instead of showing (as had been so often stated) that the sun has a very deep atmosphere, proves, on the contrary, that his atmosphere must be exceedingly shallow by comparison with the dimensions of his globe. It is easy to show why this is; and although the considerations on which the matter depends are exceedingly simple, yet the case is by no means the first in which exceedingly simple considerations have been lost sight of by students of science. Suppose we have a brightly-white globe encased symmetrically within a globe of some imperfectly transparent substance—as green glass. Now, if the white globe is an inch in diameter and the green glass globe a yard in diameter, the brightness of the white globe will be more or less impaired according to the transparency of the glass; but it will not be much more impaired at the edge of the inner globe's disc than near the middle. For clearly, when we look at the middle, we look through a foot and a half of glass (wanting only half an inch), and when we look at the edge of the inner globe's disc, we also look through a foot and a half of glass (wanting only a small fraction of an inch). Neither the half inch in the one case, nor the small fraction of an inch in the other, can make any appreciable difference, so that the enclosing globe of glass cuts off as much light when we look at the centre of the inner globe's disc as when we look at the edge. But now suppose that the enclosing globe

orms a mere shell around the inner one. Suppose, for instance, that the inner globe is a yard in diameter, and the shell of glass only half an inch thick. Then in this case, as in the former, the brightness of the inner globe will be more or less impaired according to the transparency of the glass; but it will no longer be affected equally whether we look at the middle or at the edge of the inner globe's disc. In the former case we only look through half an inch of glass, in the latter we look through a much greater range of glass; as the reader will see at once if he draw two concentric circles nearly equal in size to represent the inner globe and its enclosing shell. It is easy to calculate how long the range of glass actually is in the latter case. I have just gone through the calculation, and find that when the eye is directed to the edge of the enclosed globe, its line of sight passes through rather more than four inches and a quarter, so that more than eight times as much light is absorbed as in the case where the eye looks at the middle of the inner globe's disc, or directly through half an inch of glass.

Now, we cannot tell what proportion holds in the case of the sun's disc, because we do not know how much light has been absorbed where we look at the middle of the disc. All we know is that whatever remains *after* such absorption is about twice as much as we receive from near the edge of the disc. It is easily seen that this knowledge is insufficient for our requirements. But there can be no question whatever that the total absorption near the edge exceeds many times that near the middle of the disc; and on very reasonable assumptions as to this excess, it may readily be shown that the absorbing atmosphere cannot exceed some five or six hundred miles in depth. Probably it is even shallower.

Now, there is a circumstance which perfectly accounts for the non-recognition by spectroscopists of an atmosphere relatively so shallow as this. Let it be remembered, in passing, that the average height of the sierra may be set at about five thousand miles; so that the atmosphere we are dealing with would be at the outside but one-fifth as high as that fine rim of red light with saw-like edge which astronomers detected around the eclipsed sun in the total eclipses of 1842, 1851, and 1860.

Still it might be thought that patience only would be needed to detect the signs of such an atmosphere, shallow though it be. But there is a peculiarity of telescopic observation which renders the recognition of such an atmosphere, if of less than a certain depth, not difficult merely, but impossible. It may be well to exhibit the nature of the peculiarity at length, because it is of considerable interest to all who possess or use telescopes. I take an illustrative case which seems, at first, to have little connection with my subject.

Every reader of this serial has heard of the double stars, and I dare say most of those who read this particular article have seen many of these beautiful objects. It is known that some double stars are much closer than others, and we commonly hear it mentioned as a proof of the excellence of a telescope that it will divide such and such a double star. But it might seem that if a telescope of a certain size were constructed with extreme care, it should be capable of dividing *any* double star, because we might use an eye-piece of any magnifying power we pleased, and so, as it were, *force* apart the two star-images formed by the object-glass. Instead of this being the case, however, there is a limit for every object-glass, beyond which no separation is possible; for this reason simply, that the star-images formed by the object-glass are not points of light, as they would be if they correctly represented the stars of which they are the optical images. The larger the object-glass (assumed to be perfect in construction) the smaller is the star-image; \* but it has always a definite size, and if this size is such that the two images of the stars forming a pair actually touch or overlap, we cannot separate them by using highly-magnifying eye-pieces.

Now, what is true of a star is true of every point of any object we examine with a telescope. The image of the point is always a circle of light, which, though minute, has yet appreciable dimensions. The

\* A curious illustration of this is given by the fact that a certain astronomer of old, having reduced the aperture of his telescope to a mere pin-hole, announced that he was thus enabled to measure the real globes of the stars, for instead of seeing the stars through his telescope as minute points of light, he now saw them with discs like the planets. He thought he was improving the defining qualities of his telescope, instead of altogether destroying them.

image of the object is made up of all these circles, which necessarily overlap. Nor let the reader suppose that on this account telescopic observation is untrustworthy. Precisely the same peculiarity affects ordinary vision. There is no such thing as a perfect optical image of an object; though neither eyesight nor telescopic vision need be regarded as deceptive on this account. Our power of seeing minute details are limited by this peculiarity, but we are not actually deceived. If microscopic writing be shown us, for instance, we may find ourselves, after poring over it for some time, unable to make out its meaning, the letters seeming all blended together; but we know what our failure really means, and by no means fall into the mistake of concluding that there are no details because the actual details are inscrutable.

Let us apply this consideration to the sun, and more particularly to the appearance presented by the edge of the sun's disc. The image of every point of this edge is a small circle; the combination of all these small circles must produce a ring of light all round the true outline of the disc. If the sun's atmosphere did not reach beyond this ring, then no contrivance whatever could render the atmosphere discernible, let the telescope be never so perfect and the observer never so clear-sighted or skilful. Now, the actual extension of this ring will be greater or less according as the object-glass of the telescope is less or greater. It may readily be shown that neither Mr. Lockyer's telescope nor Fr. Secchi's could possibly show any signs of a solar atmosphere under two hundred miles in depth, while in all probability an atmosphere four or five times as deep would escape their scrutiny.

Are we then to remain altogether in ignorance of such an atmosphere, supposing that it actually exists, and that the dark lines in the solar spectrum are due to its absorptive power? Is there no way of obviating the difficulty which has just been dealt with?

So far as the method of observing the sun when uneclipsed is concerned, the answer to these questions must be negative; or, rather, it must be answered that our only hope of meeting the difficulty consists in increasing the size of the telescopes with which the sun is spectroscopically studied. And inasmuch as Dr. Hug-

gins is preparing to apply the powers of a much larger telescope than either Mr. Lockyer's or Fr. Secchi's, we may possibly still hope to hear that the relatively shallow atmosphere can be studied when the sun is not eclipsed. For we may now speak of the existence of this atmosphere as a demonstrated fact. The difficulty which seemed to present insuperable obstacles to the observers who study the uneclipsed sun, has been overcome by the ingenuity of one of the most skilful of those very observers—Professor Young, of America—when studying the solar eclipse of last December.

If during any total eclipse of the sun, the moon *just* concealed the whole of the sun's disc (as may well happen), and if our satellite were only complaisant enough to stay still for a few minutes in such a position so that one of these exact total eclipses could be studied as readily as one of greater extent (which never can happen), then the shallow atmosphere I have been speaking of could be recognized. The difficulty above considered would no longer exist. For the ring of light which actually hides the shallow atmosphere when the sun is not eclipsed, is an extension of the bright rim of the disc outwards: if the disc is completely hidden, there is no bright rim to be extended, and anything existing close by the sun's globe can be recognized.

But then, unfortunately, no total eclipse can present these desirable features. If a total eclipse is to be worth seeing at all, the moon's disc as seen at the time must be appreciably larger than the sun's. When totality begins the outlines of the two discs just touch at a single point, and when totality ends the two discs just touch at another point; but during all the rest of the totality the two outlines do not touch at all, that of the moon surrounding without touching that of the sun. The outlines of the two discs *do* twice touch, however, in each case for one moment and at one point. What Professor Young determined to do, therefore, was to bring under special examination that one point where the outlines touch at the exact moment when totality begins. In other words, he directed his special attention to the point where the last trace of the sun's disc was about to disappear. It is perhaps scarcely necessary to say that he did not trust to the powers of his telescope,

but that he employed a powerful spectroscope. And further, he did not depend on his own observation alone, but had adjusted a spectroscope for the use of Mr. Pye, an English gentleman residing in the part of Spain where the eclipse-observing parties were stationed, so that that gentleman also might make the required observations.

In his account, Professor Young does not mention what he expected to see. It is probable that he had in his thoughts the observations of Fr. Secchi, and hoped to obtain evidence respecting that shallow atmospheric envelope which Secchi believed in and Lockyer rejected; though it is quite possible he merely desired to ascertain whether the constitution of the lower part of the sierra differed in any marked respect from that of the upper portion. As the moment approached when the last fine sickle of sunlight was to be obscured, the solar spectrum which was visible in the spectroscopic field of view grew rapidly fainter. The region actually examined by Professor Young was in reality a narrow, almost linear space, touching the edge of the sun's disc; so that before totality had commenced he had the light from our own illuminated atmosphere, and not direct sunlight, to deal with. Thus he had just such a solar spectrum as is seen when a spectroscope is directed to the sky in the daytime. But as the moment of totality drew near, the illumination of the atmosphere, and with it the brightness of the rainbow-tinted streak, rapidly diminished. At last the solar spectrum vanished; and then—*What was it replaced by?* What was found to be the spectrum of the solar atmosphere close by the sun's surface? In place of the rainbow-tinted riband crossed by thousands and thousands of dark lines, there appeared a new and most beautiful spectrum—a riband of *rainbow-tinted lines*, thousands in number and of all degrees of thickness,—hundreds of red lines, and then, in order, hundreds of orange lines, hundreds of yellow, green, indigo, and violet lines, like colored cross-threads on a black riband, only infinitely more beautiful. A charming spectacle, truly, but so short-lived that no man can ever hope, though he lived to fourscore years and ten, to let his eyes rest in all his life for more than ten or twelve seconds on the beautiful array of

colored lines which two men only have as yet beheld. We may increase the dimensions and power of our telescopes until the existence of these lines can be recognized without the aid of eclipse-darkness, but the lines can never be seen, save during eclipse, as Young and his colleagues saw them last December. And these observers tell us that in a second or two the lines vanished, the advancing moon hiding the shallow solar atmosphere. If it should ever be given to any man to see six total eclipses (which has never yet happened to any), and to successfully apply in each instance the method employed by Professor Young, then in all, during his life, that man would have seen the beautiful line-spectrum to perfection for some ten or twelve seconds; but no otherwise can even so long a total period of observation be secured. No single observer, then, can hope to learn much about the thousands of lines which have still to be mapped during eclipse opportunities.

But now let us consider the import of the observation. What are these myriads of colored lines? Every dark line of the solar spectrum, says Professor Young, seemed to have its representative in this bright-line spectrum. Many of the groups of lines which had flashed so quickly into view and endured but so brief a period, were familiar to him; in other words, his study of the solar spectrum had made him conversant with the corresponding groups of dark lines. It follows, then, beyond all possibility of question, that the source of light was a highly complex atmosphere, formed of those very vapors which, by their absorptive power, produce the dark lines—formed, that is, of the vapors of iron and of copper, of zinc, sodium, magnesium, and of all those elements whose presence in the sun's substance had been inferred from the study of the solar spectrum.

Here, then, at length we have the true solar atmosphere an atmosphere of a highly complex nature, and doubtless exceedingly dense near the visible surface of the sun, because subject to a pressure so enormous. The upper limit of this atmosphere cannot lie very far above the sun's surface, at least not very far compared with the sun's dimensions. Supposing the actual time during which the line-spectrum was visible to have been

two seconds, then it is easy to tell how deep the atmosphere is. For in two seconds the moon must have traversed a space corresponding to about three hundred miles at the sun's distance. An atmosphere three hundred miles deep is, therefore, indicated by Professor Young's observations. It need hardly be said, however, that in the excitement of eclipse observation, the estimate of minute intervals of time can scarcely be relied upon, unless checked by instrumental arrangements, which was not the case in the present instance. We may fairly conclude that the depth of the solar atmosphere lies between some such limits as a hundred miles and five hundred miles.

In the above estimate I have supposed the measurement to be made from the sun's visible surface. But it is very unlikely that that surface is the true lower limit of the atmosphere. It seems far more probable that the surface we see is merely a layer of clouds (as Sir William Herschel suggested so long ago) in the solar atmosphere, and that the actual depth of the atmosphere is more truly indicated by the appearances seen when large sun spots are examined. That these spots are cavities has been abundantly established. That they are openings through layers of solar clouds has not been indeed demonstrated, yet it is difficult to conceive how they can otherwise be interpreted. As to the way in which the spots are formed, theorists are at issue, some urging that there is an uprush from depths beneath the solar surface; others, that there is a downrush of matter from without. But neither of these views is in any way incompatible with Herschel's theory that the spots are openings in solar cloud-layers.

We might thus be led to compare the solar atmosphere with our own, though it will of course be obvious that there are many marked points of difference. But in our own atmosphere we have at least two distinct cloud-levels, the region, namely, where the *cumulus* or wool-pack clouds are formed, and that where the *cirrus* or feathery clouds make their appearance. There is air above the cirrus clouds, air between the cirrus and cumulus layers, and air between the cumulus clouds and the earth. And precisely in the same way we may conceive that there exists at all times a solar atmospheric region be-

neath as well as above the cloud-layer which forms the sun's visible surface, and beneath and between the other cloud-layers revealed by telescopic observations.

But passing from the very difficult questions suggested by the consideration of regions *below* the sun's visible surface, let us discuss briefly the bearing of Professor Young's discovery upon our views respecting those outer regions—the colored prominences and *sierra*, the corona itself, and, in fine, all the portions of space which lie above the true atmosphere.

In the first place, it seems to me that the observations made during the late eclipse dispose finally of the theory that the colored *sierra* is an atmospheric envelope, properly so-called. I had long since been led to question whether the *sierra* could be so regarded. Let me remind the reader that the *sierra* is nothing more nor less than the region which Lockyer rediscovered in 1868. It had, in fact, been recognized by telescopists since 1806, the name *sierra* having been given to it by the observers of the eclipse of 1842. It is a red region, having (as its name implies) a serrated upper surface, as seen in the telescope, and seemingly extending all round the sun's disc. The red prominences appear to spring from its upper surface. Strangely enough, when Lockyer made his ingenious observations of the colored prominences, he had not heard of this discovery, or had forgotten it. Accordingly, finding traces of prominence-matter all round the sun, he concluded that there was a continuous envelope of hydrogen (mixed with some other gases) surrounding the whole of the sun's globe. It was probably through being misled by this supposition that he gave to the *sierra* a new name—entitling it the *chromosphere*—announcing at the same time that its upper surface was smooth in outline. Respighi, the eminent Italian spectroscopist—also working, it would seem, in ignorance or forgetfulness of the prior recognition of the layer—announced presently that the upper surface of the so-called *chromosphere*\* was altogether ir-

\* It affords strange evidence of the caution with which new names should be suggested, that this name, embodying, as we see, an erroneous theory, and also perpetuating the remembrance of a mistaken claim, is scarcely yet beginning to fall into disuse. Perhaps its Greek origin and its length

regular—more irregular, in fact, than the surface of a tempest-tossed sea. On re-examining the sierra, Mr. Lockyer found this to be the case. But perhaps the most striking evidence as to the real aspect of the sierra was afforded during the eclipse of last December, when Fr. Secchi, towards the close of totality, saw around the western half of the moon's disc a complete semicircle of sierra, and noted that this beautiful colored crescent was formed of multitudes of minute prominences. This agrees very satisfactorily with my own anticipatory description of the probable nature of the sierra, when I suggested that the sun's surface is probably "covered at all times with small prominences, bearing somewhat the same relation to the gigantic 'horns' and 'boomerangs' seen during eclipses that the bushes covering certain forest regions bear to the trees."

But the larger prominences have been shown by Zöllner and Respighi to be phenomena of eruption. They are masses of glowing gas, which have been flung from great depths beneath the visible surface of the sun. May we not conclude that the smaller prominences which constitute the sierra are of like nature? that they also have been flung from beneath the sun's visible surface? As respects the larger prominences we can have no manner of doubt, because they have been seen to be flung out in eruptive sort. And this refers to all orders of prominences, except only those very numerous and relatively very small prominences which crowd together so as to form the seemingly continuous colored sierra. These cannot be watched as the others have been. But it seems highly probable that those among them which are not the remains of loftier prominences, are, like their larger fellows, phenomena of eruption.

Again, as respects the corona, all the evidence may have something to do with this; for although astronomy—at least, descriptive astronomy—has hitherto not been disfigured by the hideous nomenclature which botanists and geologists seem to rejoice in, yet there is always a large class of science-students who delight in sesquipedal names, as giving an air of profundity to their discourse. It may even be dangerous to hint that the true form of the compound for a *color-sphere* is not *chromo-sphere*, but *chromato-sphere*, since the extra syllable will multiply tenfold the favor with which the compound is accepted. When will the tyro learn that the true lover of science

"*Projicit ampullas et sesquipedalia verba?*"

dence we have is opposed to the conception that the phenomenon is atmospheric. It shows two regions, which, though not separated by well defined limits from each other, may yet be regarded as, in a sense, distinct. There is an inner and brighter portion, which the sesquipedalians have proposed to call the *leucosphere*,—apparently on the *lucus a non lucendo* principle, for it is neither white nor spherical. And there is the outer portion, much less brilliant, and much more strikingly radiated. Neither one part nor the other presents a single feature suggestive of an atmospheric nature;\* and the certainty that the two portions belong to a single object affords yet more conclusive evidence against this interpretation of the corona. But the rays of the corona are of a somewhat remarkable nature. When well seen, as during the eclipse of 1868, they are pointed; and even during so unfavorable an eclipse as that of December last, the dark spaces between the rays are seen to widen rapidly with increased distance from the sun. These pointed radiations serve to show that coronal rays must be, in reality, shaped somewhat as cones, having their bases towards the sun. The idea is startling enough, but, admitting the accuracy of the pictures made during well-seen eclipses, and of the Astronomer Royal's account of the corona during the eclipses of 1851 and 1860, there is no escape from the conclusion here stated. It is not more certain that the sun is a globe, and not a flat disc, as he seems to be, than that the coronal radiations are not flat-pointed rays, but cone-shaped. But no one will suppose that there are a number of monstrous cone-shaped masses—atmospheric or otherwise—standing, as it were, upon the sun's surface. I can see no other way of accounting for these conical extensions than by regarding them as phenomena indicating some form of repulsive action exerted by the sun.

But whatever opinion we may form on this and kindred problems, it seems clear that we must regard the envelope discovered by Professor Young as the only true solar atmosphere: and a very strange and

\* I am here referring to the possibility that the corona may be due to some species of solar atmosphere. The theory that the corona is due to light in our own atmosphere, has now at length been definitely abandoned by all astronomers.

complex atmosphere it is. Nothing yet learned respecting the sun's surroundings surpasses in interest this fiery envelope, in which some of the most familiar of our metals appear as glowing vapors. If anything could add to the interest attaching to the colored prominences and sierra, it is the fact now revealed that they are propelled through this wonderful envelope, over which they float for a while with

strangely changing figure. Truly the study of solar physics, which twenty years ago seemed at a stand-still, is advancing with rapid strides; and it seems scarcely possible to exaggerate the interest either of what has been already revealed, or of the discoveries which are likely to be effected during the approaching year.

RICHARD A. PROCTOR.

Temple Bar.

ROBESPIERRE: A PSYCHOLOGICAL STUDY.

(BY THE AUTHOR OF "MIRABEAU, A LIFE DRAMA.")

ROBESPIERRE! Amidst all, even of the foremost, of the human wolves of the Revolution—amidst all that band of assassins who wrecked its glory in a sea of blood—that name stands forth like the moon among the stars. Lives there a man who can read, who has not read of him? To thousands the names of Hébert, Barrère, St. Just, Couthon, Camille Desmoulins—even of Danton and Marat—are scarcely known. To such the Reign of Terror had but one king, one creator—Robespierre! Truly an awful fame—an immortality of *blood!* To violent republicans he appears a man of noble virtues—to bigoted monarchists merely a human butcher, delighting in blood for blood's sake. The first are unreasoning enthusiasts, glorifying the idol of an idea, regardless of the temple in which they enshrine it; the latter, superficial judges, who look but upon men's actions, and take no thought of the hidden motives that create them. Robespierre was one of the most profound psychological problems ever born into the world—the strangest mass of contradictions and opposing elements that woman ever bore. A defender of monarchical institutions, and the executioner of a king and a queen. Amid universal atheism the sole proclaimer of the immortality of the soul, of the existence and benevolence of a God. The founder of the Feast of the Supreme Being, and the bloodiest and most merciless man on record. The persistent advocate of the abolition of capital punishment, and the man who condemned more human beings to death than Draco himself.

François Maximilian Joseph Isidore de Robespierre (this destroyer of aristocrats was entitled to the aristocratic *de* before

his name) was born at Arras, in the year 1758. He is supposed to have descended from an Irish family who settled in France in the sixteenth century, and it has been suggested that the original name of the first settler was Robert Spiers, which by French pronunciation would soon become "Robespierre." Maximilian's father was an advocate. At the age of ten the boy had lost both parents, and was left with a brother and two young sisters—the eldest, and virtually the head of the family. His early education was received at the College of Arras. After a time the Bishop, with whom he was a great favorite, placed him at the College of Louis le Grand, at Paris, as a scholar on the foundation, and to Paris he went in the year 1770. Two of his chums were Camille Desmoulins and Danton. What a strange coincidence, the meeting of that triumvirate! As the gay noblesse of Paris rolled by the quiet precincts of the college in their luxurious carriages, did no boding shadow ever darken their mirth? Could those perfumed wits, those sirens so lovely, so *débonnaire*, have been vouchsafed but one glance into the futurity of twenty years—have seen the streets of Paris streaming with their blood—their bodiless heads stuck upon pikes, the ghastly gibe of the mob that was *then* but the dust beneath their feet—could they have seen those three boys developed into the daring Camille, the brutal Danton, the bilious Robespierre of 1791! What then? Had an angel from heaven unveiled the vision they would have laughed it to scorn. Not the smallest cloud darkened the horizon of their pleasure. The people starved, and nursed their wrongs in silence, or their mutterings were not loud enough to reach ears polite. So the

great feasted and revelled in their gilded salons. "As to-day, so will be to-morrow. The earth is ours, and the fulness thereof, and those who are not of us live but to minister to us." So spoke the hearts of the shortsighted fools. The writing was upon the wall, but they could not see it—no, not till the gleaming weapons and the wild fingers of the *sansculotte* pointed to the words of doom, and the warning and the destruction came locked in each other's arms!

Robespierre had little in common with his wild fellow-scholars; he mingled in no orgies, plunged into no dissipation; his drink was water, his food of the plainest. His bilious temperament created melancholy; he was studious and silent. His days and nights were spent among the literatures of Greece and Rome—not with Homer, Horace, and Virgil, but with Iivy, Herodotus, and Plutarch. Although not insensible to the roseate influences of poetry—he was afterwards a poetaster himself, one of a society at Arras, whose members wrote bad verses, and crowned each other with roses to blazon their badness—it was in those old Roman stories of inhuman virtue that he chiefly delighted. That utter contempt for human suffering or human life, when opposed to the abstract idea of patriotism; that fierce clinging to republican institutions that characterized the pre-Cesar period of Rome—these stories charmed and fascinated him; upon these he modelled his mind. But that mind possessed none of the grandeur, the daring courage, the sublime self-sacrifice of those mighty men of old; it was mean, cowardly, and despicably vain; it could only assimilate their cruelty—it could not digest their nobleness; it was too weak.

Yet the influence of these studies was infinitesimal compared to that produced upon him by the writings of Rousseau. Every doctrine of that strange brilliant genius was enthusiastically absorbed by Robespierre. That clinging to theism, and a certain code of Pagan morality which marked the Dictator throughout the horrible atheism and filthy excesses of the Revolution, arose, perhaps, from the wholesale absorption of Jean Jacques' doctrines, which had become, as it were, a portion of himself, incapable of division.

Rousseau was the father of the Revolution. Beneath the lethargic languor of

absolutism the mind of France was slumbering; it accepted the present, it hoped for no change. It was like an overworked horse or an overbeaten child—dull, sullen, and unimaginative. Suddenly, upon the darkness and sluggish atmosphere of this world burst the genius of Rousseau, like streams of electric light reanimating the paralyzed souls of men, revealing to them the depths of their own debasement with glimpses of ideal but, alas! delusive beatitude which seemed within their reach. Every man who read thrilled in every fibre to the passionate poetry, the deep tenderness, and to the strange, unheard-of doctrine of the equality of all mankind. From the reading man these things were transfused vaguely; but, from their very vagueness, steeped in hues yet more roseate to the mass. The hidden fires engendered by oppression began to glow, and where they glowed fiercest volcanoes burst forth. Those volcanoes were Camille Desmoulin, Mirabeau, Danton, Robespierre, and their *confrères*—the last of the four the most terrible, the Etna of the rest! To change the image, Rousseau was the brain of the Revolution, those men the body.

After leaving college Robespierre became a student of jurisprudence. His studies completed, he returned to Arras. His old friend, the Bishop, procured him an appointment in the criminal court. He now distinguished himself as a strenuous advocate for the *abolition of capital punishment*; and not long after he had accepted the membership, being compelled, in virtue of his office, to condemn a criminal to death, he was so painfully affected that rather than again undergo the same infliction he chose to resign his office. Does not this read like the wildest fable? It was no hypocrisy, for what could he gain by it?—only the displeasure of his patrons. No, the nature of the man was utterly devoid of physical courage, and all such natures instinctively shrink from blood, which is in their minds inextricably associated with violence, with that physical contention for which their nerves unfit them. I have said they instinctively shrink from blood; yes, until they taste it, then their appetite grows insatiable for it. All wild beasts are cowardly; a high-souled man is the only really courageous being in the world. The bloodier the beast, the more cowardly—for instance, wolves and tigers. So it is with men. Cowards are ever the

most malignant. No man would be a coward if he could help it, for every coward inwardly despises his own cowardice ; and it is his impotent rage against that vice which prompts him to savagery, to cover his shame with the cruelty, because he does not possess the nobleness of courage. In such men the first natural horror of shedding blood, which is an instinct of our nature, overcome, blood-shedding becomes a horrible fascination. The *timidity* vanquished, the *cruelty* of the coward rides rampant.

Having made himself famous among the townspeople of Arras by a denunciation of *lettres de cachet*, and by a political pamphlet upon the *Tiers-Etat*, he was chosen, when the hour arrived for the assembling of that celebrated body, their member for the States-General.

Out of the cloudless sky the sun pours down its floods of golden light, glitters upon the helmets and arms of the troops, glistens upon the gorgeous dresses of the court, gives a radiance to beauty, a brilliancy to the meanest objects. The hot air is filled with the strains of martial music, with the clangor of the joyous bells, with the acclamations of excited thousands. And all to welcome the States-General as they march on their way to the Church of St. Louis to ask a blessing upon their deliberations. There is one man in that crowd who is to achieve a more terrible fame, a mightier power, than any the sun shines upon that day—a man destined to sign the death-warrant of hundreds of hearts that beat blithely and proudly on that July morning. And yet, while necks were stretched and eager eyes wandered to catch a glimpse of men whose names are now half-forgotten, no one deigns a glance at him—for Paris has never heard of him.

As, in a former article, I chose that momentous day to paint the portrait of the magnificent Mirabeau, I now take the same opportunity to present a companion—but what a different—picture !

A small mean-looking man, weak limbs, always palpitating with a nervous shiver, and a timid, irresolute gait. His dress is faultlessly neat and precise. Head powdered, not a single hair awry. Bright blue coat buttoned tightly at the hips, but open at the chest to display the spotless white waistcoat ; yellow breeches, white stockings, shoes and buckles. This costume

is never varied, except that the shoes are sometimes exchanged for topboots. The face is sharp and peaky ; the forehead projects over the temples, and is compressed at each side like that of a wild beast ; eyes blue, deeply sunken, with heavy lids, and a latent savage sparkle ; nose small, straight, expanded at the nostrils ; mouth large ; lips thin and pallid, and compressed at the corners ; chin small and pointed ; complexion yellow, livid, cadaverous. Habitual expression grave, with a half sweet, half sinister smile. Every muscle of the face working with a ceaseless twitch. Over the whole a terrible expression of concentrated purpose. When he speaks his gestures are awkward, his fingers work nervously ; his voice is shrill and discordant ; when agitated by rage or exultation it sounds like the scream of a hyaena.

So obscure was he when he first came to Paris, that in the earlier reports of the proceedings of the States-General, his name is never spelt correctly, and seldom twice alike. Ridiculed and scorned at first, little by little he gained the attention of the Assembly. Then came the founding of the Breton, afterwards the Jacobin Club, in whose discussions he took a prominent part. But for a time the little insignificant Robespierre was overshadowed by the magnificent Mirabeau, the gigantic Danton, and the daredevil Camille. But he bided his time, working quietly on, never missing an opportunity of disseminating the Socialistic doctrines of Rousseau, or of thrusting himself into prominence, but ever avoiding the initiative of violence. To the end of his career it was a distinguishing mark of his character that he was never one of the pioneers of the decisive acts of the Revolution, although he was always the first to follow in the wake and profit by the effects. Brave men fight and die upon the battlefield ; their gold becomes the prey of the robber, their bodies of the carrion-crows.

The first blow is struck—the destruction of the Bastille. The King comes unguarded to the Assembly, crying, “I, who am but one with my nation, come to intrust myself to you.” A reaction sets in—the mob receive their monarch in the streets with frantic demonstrations of loyalty ; Lally Tollendal proposes unlimited confidence in the royal word. Robespierre vehemently opposes the motion and turns

the tide. This is his first direct attack upon royalty, for it must be remembered that down to a much later period he professed himself almost ostentatiously a monarchist. Here was, indeed, hypocrisy, for the man was never anything but a republican. But the time was not ripe for such opinions; he waited until others should declare them.

In the mean time the tempest was gathering fast and thick. Hideous wretches, who had never before dared face the light of heaven, crawled out of their noxious holes; gaunt men and famished women wandered through the streets howling for the bread that heaven withheld from them. Day by day this terrible mass of suffering grew bolder and fiercer, till at last the streets of Paris were reddened with blood and fouled with horrible murders. Even the death of its victims could not satisfy the ferocity of the mob. Of one they took the heart and pieces of the body and boiled them in wine, then drank the liquor with dance and song.

Now the Assembly passes the celebrated Declaration: the original equality of mankind, the right of universal suffrage, that the State burdens shall be borne by all subjects in proportion to their means. Quickly upon this important measure comes the discussion upon the veto, and then upon the suspensive veto—that is, whether the King should retain the power of suspending any law approved by the Assembly for a certain term. Both propositions were vehemently opposed by Robespierre. When the Assembly voted the hereditary succession, he moved that all ancient formulas should be replaced by these words: "I Louis, by the grace of God and the will of the nation, King of the French, to all citizens of the French Empire. People, this is the law your representatives have made, and to which I affix my seal." But the motion was unanimously rejected. When the King sent his answer to the Declaration of Rights, he objected to it as not being sufficiently explicit. "Is it," he said, "for the executive power to criticise the constitutional, from which it emanates? It is the right of no power on earth to raise itself above the nation and censuré its wishes. . . . You can only avoid obstacles by crushing them." Verily his opinions were advancing. The last words contain the first menace that had yet been uttered.

Even as late as 1791, we find him hotly maintaining his old war against capital punishment. On the occasion of a motion of Lepelletier Pargeau for its abolition, he uttered these remarkable words: "In the eyes of justice and mercy these death-scenes which are got up with so much solemnity are nothing less than base assassinations, solemn crimes, committed, not by individuals, but by nations, and of which every individual must bear the responsibility. . . . To take away from man the possibility of expiating his misdeeds by repentance or by acts of virtue, is, in my eyes, the most horrible refinement of cruelty!"

Listen to these passages from the very speech in which he was urging upon the Assembly the death of the King: "*For myself I abhor the penalty of death . . . but a dethroned king in the heart of a republic not yet cemented . . . neither prison nor exile can give him a harmless existence. It is with regret I pronounce the fatal truth, Louis must perish because our country must live . . . I vote for death.*"

The mind of this man had passed through many phases since he resigned his office at Arras on a similar question. His was a sluggish mind—its qualities developed slowly, and each quality required a separate stimulant to become active. He felt but little of ambition then, for he beheld no great object within his reach; and remember, he possessed no *daring*, no talent for the *impracticable*; but little of envy, for his associations were mediocre. Egotism must have always been prominent, but it was the egotism of ideas, the worship of an ideal standard of lofty principles which he had created within, the worship of self in the abstract. But now, in the year 1791, supreme greatness was within his grasp: he might become the founder of the republic of his dreams, establish the idolized principles of Rousseau, be the creator of a new order of things, the great philanthropist of all ages. He had been brought into collision with every phase of greatness—greatness of soul, of intellect, and of station; conscious inferiority humiliated him, and in such a mind envy grew in proportion to humiliation. The growth of egotism was a natural sequence to that of the other passions. Although still a believer in the principle of the abolition of capital pun-

ishment—for this strange being never forsook a principle once formed—that principle was dwarfed into insignificance beside the mightier ones that now burned within his mind, filling him with a wild fanaticism, fixing his eye afar off upon the future, blinding him to the present, hurrying him on with the resistless fury of a demoniac. Sweep away King, sweep away Queen, nobles, every enemy, every rival of Maximilian Robespierre! Let every stone of Paris stream with blood, pile up corpses until they crimson the face of heaven, decimate the world so that the great *Ego* may triumph. Then for the millennium, the reign of peace, equality, liberty, fraternity, eternal love and good fellowship—no more hunger, no more crime, no more blood-spilling!

But this gigantic programme grew in his mind only by degrees. The cowardice of his nature would have shrunk appalled, even on the very eve of its realization, at the vision of the Reign of Terror. With the shortsightedness of all great criminals, he thought he could stay his hand at any moment. The King removed, the nobles swept away, and the bloody work was done. How small a sacrifice for so grand an end! But it was the old fable of the Hydra, in this case multiplied a hundred-fold; for for every head cut off, two sprang up in its place, which doubled and quadrupled until the victims had to be condemned in batches of fifty and sixty at a time, until canals of blood ran through the streets, until he was heard to cry in his solitude, "Nothing but blood—how much more—when will it end?" But it was not the cry of humanity—of that he possessed no particle; human suffering touched him not at all—to that he was utterly callous. Amidst all the frightful butchery he lived through, he never once raised his voice to save one human life. There is an anecdote told of him which will better exemplify his nature than pages of description.

A friend with whom he was most intimate, and who was sincerely attached to him, begged him to save the life of a certain prisoner who was ordered for execution. "At what hour is he to suffer?" asked Robespierre. "At eight," was the reply. "I would most willingly oblige you, but I never rise till nine. It is impossible," answered the despot. The man was marble.

The more blood he gave to the wolves of Paris the more they clamored for. To pause in the murderous work was to be accused of reaction. Robespierre never opposed himself to the popular will, except when he imagined it might compromise his own safety; he had cast himself into the stream, and wherever it flowed he went, nor made one effort to stem its fury. The cry of the mob was still "More blood—more blood!" And he, the butcher, never failed to supply it.

Let us for a time leave his public career and look in upon his domestic life. He lives in a garret in the Rue St. Honoré. He is very poor, for amidst all his crimes this man well deserved the title bestowed upon him—the incorruptible—no bribe ever soiled his fingers. His garret is almost meanly furnished. But on the walls, on the table, on the shelves, in every nook, are portraits and busts of himself. Whichever way he turns, *Ego, Ego, Ego* is before him. They are so many little crucifixes at which he worships. His habits are austereley simple.

In the same house lives the family of Duplay. He is engaged to the eldest daughter Eléonore, and she adores him! Fancy a woman adoring Robespierre. But was not the filthy Marat adored by a beautiful woman who gave up husband and home for him? They, Maximilian and Eléonore, are to be married when the troubles are over; that time will never come; but to her dying day he will be her noble hero. Her youngest sister, who lived into the middle of the present century, although he destroyed her own husband a few months after their marriage, never ceased to speak of him as the purest, most virtuous, and gentlest of men! Among his letters were found epistles from a lady of birth and fortune couched in almost idolatrous terms, and offering half her fortune to forward his principles. He is said, also, to have been much loved by his male friends.

But to return to his home. When not at the Jacobins, the evenings are passed reading some tragedy of Racine to the Duplays. Sundays and holidays are spent in some delightful trips into the country, where he wanders through the woods and meadows, talking poetry or philosophy to Eléonore, who leans upon his arm a rapt and devout listener. What a picture of calm simplicity! Can this Robespierre

and the bloody Dictator of the Commune be one and the same man? Strange, incredible as it seems, it is even so.

Mirabeau's death was Robespierre's opportunity, and he seized it; from that time his rise was sure and rapid. He hated his great rival with all the malignancy of a mean mind; that rival's nobleness of soul and resistless eloquence crushed and humiliated him, infected him with a sense of his own littleness—debased the idol *Ego* with the sense of inferiority. He never spoke of him but in terms of hatred, and even after his death he demanded that his bust should be removed from the Jacobins, insinuating that his own, Robespierre's, should be placed in its stead. He could not endure to look upon even the marble image of any greatness but his own.

And after Mirabeau's death the Revolution advanced with giant steps. His deathbed prophecy was soon realized: "I carry away with me the funeral of the monarchy," he said; "its remnants will become the prey of the factions." The flight of the King and his recapture were the most important events; it was upon the occasion of the latter event that Robespierre, supported by the Jacobins, first openly declared for a Republic. From that time he fiercely opposed any attempts to show the slightest favor to the unhappy Louis. When the petition to the Assembly was drawn up to force the abdication of the King, he incited on the furious mob who raved for its signature. But when the troops appeared he betrayed the most abject cowardice, flying at the first volley, and hiding himself from every one. But the storm passed away, and then he was to be found at his old post at the Jacobins, inflaming the people against the rich and the great. It was a fanaticism of envy and egotism; everything that obscured his glory must be swept away.

Robespierre led men whither they would go, but he had not the courage to take an initiative step. He was the midwife to men's secret and half-conscious thoughts.

When Barbaroux, the leader of the Marseillaise, sounded him to head the conspiracy which culminated in the slaughter of the 10th of August, he threw out hints that the Dictatorship should be vested in him. He was always hankering after the Dictatorship; it was the dream of his life, the pinnacle of his ambition; and yet, although it was afterwards offered him over

and over again, *he feared to take it*. Had the unanimous voice of the nation conferred the honor, or could he have swept away every man of power who opposed his elevation, he would have grasped it; but cowardice was more powerful even than ambition, and so the grand object of all his crimes was never attained. To pave the clear road to this end, he sent Camille, Danton, Hébert, and hundreds of other fellow-assassins to the block. But the Hydra still sent forth new heads, that crushed him at last.

From the massacre of the 10th of August, as well as from that of the 2d of September, he kept aloof. His craven heart shrank from the actual contact with blood.

Of every great crime of the Revolution he was the originator. He it was who first demanded the death of Louis, of Marie Antoinette, and the wholesale murder of the Girondists. He it was who was President of the Committee of Public Salvation, from which appointment his absolute power may be dated. He it was who established *La Terreur*, with its six thousand men and twelve hundred artillery, sworn to execute the revolutionary laws. He it was who instituted the *loi des suspects*, by which any one might be arrested at the will of the Commune; he it was who, in three months, raised the number of prisoners in the Paris gaols from twelve hundred to eight thousand. Apologists say that his signature to death-warrants is the most infrequent of any of the heads of the revolutionary tribunal. But he was the moving power; Couthon, St. Just, and the others, were but instruments. Fiend that he was, he howled with rage when he could not blast and foul even the memories of his victims. When he was told of the noble answer of Marie Antoinette to a hideous stain that Hébert would have fixed upon her, he shattered the plate from which he was eating with impotent rage, exclaiming, "That fool Hébert! It is not enough that she is really a Messalina, but he must also make her an Agrippina, and give her in her last moments a public interest!" Even a thought bestowed upon the dead he regarded as something robbed from himself.

Royalty was no more, the nobles were no more. Mirabeau was dead; Camille and Danton and Hébert had perished; he was Dictator in all but name—the name

he feared. Now did he attempt to crush out anarchy, but he had not the courage, the power of mind, to make a governor of men. He said of himself: "I was not made to rule—I was made to combat the enemies of the people."

Midst the horrible slaughters of the Reign of Terror, he busied himself to re-establish religion, read a report on the relation between religion, moral ideas, and republican principles, and discoursed eloquently upon the immortality of the soul and the existence and goodness of a God. Gave the Feast of the Supreme Being, that solemn mockery which, for the *moment*, excited Paris to enthusiasm, but which proved the first step of his fall. The Convention murmured, "Now we have destroyed our tyrants, this man would set a God over us."

If ever a man should have set his face against the idea of an avenging God, it was Robespierre. But so absorbed was he in his abstractions and self-glorifications, that I query if he did not, even in his inmost heart, regard himself as the most immaculate of men.

St. Just now openly urged him to proclaim himself Dictator. The gloomy looks of the Convention scared him, and he dared not; but the fear stimulated him to further acts of despotism—to more bloodshed. The result was the law of the twenty-second *prairial*, by which members of the Convention could be tried by the Committee of Public Safety, without being brought before the Revolutionary Tribunal. By this means did he hope to free himself of every opponent. Now came the trying of the victims in the terrible *batches*, the bloodiest climax of the Reign of Terror. But, emboldened by his pusillanimity and lack of vigor, his enemies day by day grew more numerous and more vigorous. Threatening letters were sent him; plots were hatched against his life; two attempts were made to assassinate him; but nothing could rouse courage in him—terror paralyzed him. He absented himself from the Convention; his house was guarded by Jacobins; he never stirred abroad unaccompanied by armed men. In vain the Jacobins spurred him to attack the Convention, with offers of support to the death; he temporized, and hesitated, and shrank; his own coward heart was his Nemesis. At length he took courage to appear before the Convention,

and read a long defence—he could never speak effectively without long preparation—in which he elaborately eulogized and defended his own conduct, and bitterly attacked his enemies. But his long absence and irresolution had given those enemies a crushing power. Cambon, Billaud, Varennes, and Panis fiercely denounced him; he was defeated.

The Jacobins still stood by him, and that very night a conspiracy was formed. The Convention was to be attacked by armed force, taken prisoners, and Robespierre to be proclaimed Dictator. But even in that terrible crisis his coward heart failed him; at the last moment he refused to head the movement—he had not even the courage of a wolf brought to bay. His friends were disgusted, but would not give way; with his will, or against his will, they resolved to carry out their programme.

The next day he again appears before the Convention; but, ere he can open his lips, Billaud swoops down upon him like a tiger, and, in a fiery speech, reveals to his *confrères* the Jacobin conspiracy. Fierce and indignant murmurs break from every mouth, swelling each moment, until they rise into a terrible shout of "Down with the Tyrant!" Up springs Tallien, crying, in a voice of thunder, "I was present at the Jacobins; I heard the plot for the formation of the army of this second Cromwell, and I armed myself with this dagger, to pierce his heart if you have not the courage to order his arrest!" As he speaks Tallien makes a movement as though he would stab the culprit, who shrinks and cowers before the glittering steel. Louder and louder rise the acclamations; other speakers follow—all in the same strain. In vain does Robespierre implore a hearing, his voice is drowned with "Down with the Tyrant!" He springs upon the benches; "The Shades of Danton and Camille repel you!" cry a score of voices. He rushes to the President, shrieking, "Will you hear me!" Fists are shaken in his face; he supplicates, grovels, yells with the agony of fear, rushes from one to the other. He is driven back with curses and deafening howls. His voice cracks and fails him, then in his ears ring the terrible words, "The blood of Danton chokes you!" He is arrested.

But, in the mean time, the Jacobins are up and doing. As the gendarmes bring

forth their prisoner he is torn from them, *against his will*, and carried off to the Hôtel de Ville. Fear has paralyzed him. He will not present himself to the people ; he will not proclaim himself Dictator ; he will not sign a paper calling on the people to revolt ; he will not even countenance revolt ; he is in a coma of terror. At the news of the rescue the troops of the Commune muster quickly. Drunken Henriot, at the head of his soldiers, dashes through the streets of Paris shouting to the people to revolt ; but they are tired of the worship of their bloody Moloch, and his own men turn their cannon upon the Hôtel de Ville, throw down their arms, and disperse.

It is night. Within a dimly-lit apartment of the Hôtel de Ville sit Robespierre, and his brethren St. Just, Couthon, Lébas—the wolves are caged at last. The death-knell of *la Terreur* is ringing. St. Just and Lébas look bold and defiant ; Couthon, with his angel face and silvery voice and withered limbs, anxious, but resigned ; the sickly rays of the candle fall full upon the hideously cadaverous features of Robespierre. He has a loaded pistol and poison before him ; but this worshipper of the bloody virtues of Rome cannot imitate the old heathen heroism, and die with his fortunes. With shaking limbs and twitching face he listens to the murmurs, the momentarily increasing stir, the surge of the multitude without. The sharp report of a pistol rings through the room—Lébas has shot himself through the heart, and falls dead. Henriot rushes in to cry that all is lost ; Coffinhal, with an epithet of disgust, hurls him out of the window into the court below, where he lies a lifeless mass. The soldiers are battering at the door ; it gives way with a crash, and in they rush. A shot is fired, and Robespierre's head falls upon the table ; it has broken his jaw. All the conspirators are captured. The cold ghostly light of the dawn is just breaking as the senseless bloody form of the Incorruptible is borne out into the streets upon a litter. It is carried to the Tuileries and laid upon a table, while the Convention in the next room decide his fate. As the day advances crowds flock to the Tuileries as to a raree-show, and fill the chambers wherein lies the once terrible King of *la Terreur*—terrible no longer, but an abject, shrunken, revolting-looking object. He lies upon his side. From the broken jaw

oozes out the dark blood, and creeps over the livid face, dropping into the gaping mouth, and filling it with clotted gore ; he has half bandaged the wound, and the blood-stained handkerchief contrasts horribly with the corpse-like features. And the foul mob—to gain whose favor and applause he has shed torrents of blood—does it commiserate with him, weep over him, do all it can to soothe his anguish ? Hear this, all ye who court its favor !—ye modern Communists of France, who would fain be imitators of this man ; ye would-be Republicans of England, who so long to follow in the steps of your French brothers ! It spat upon him, mocked his groans, pricked him with knives ; there was not one who would raise the cup of water that stood beside him to his burning, cracking lips ! I wonder what he thought of the Republican doctrines for whose sake he had sold his soul at that moment.

A form of trial is gone through, and then the wild Couthon and the rest are tied down in a cart and jolted off to *la mère Guillotine*. Paris is frantic with joy. Before the cart dance the women, shouting and singing with demoniac glee. As it passes through the streets the friends and relations of his dead victims troop out to meet it with yells of frantic joy, to curse its ghastly burden, body and soul, and to pray to God to cast him into hellfire. As he mounts the scaffold the executioner tears off the bandage from his face ; the shattered jaw falls, and there leaps from his throat such an unearthly yell, as though the fiends had already their claws upon his soul. He looks down, shuddering, upon the sea of heads ; it waves and surges, as though it would sweep away the scaffold, and up from its cruel depths rises a howl of execration. Ferocious joy is upon every face ; every mouth gapes for his blood. No look of pity ; all merciless—as himself. He has sown the dragon's teeth, and behold the harvest ! The knife falls, and the head of Maximilian Robespierre rolls into the basket.

What a contrast is this picture to the death of Mirabeau ! The one ever opposed himself to the unreasoning fury of the mob ; the other ever glutted it—a lesson that all legislators should lay to heart. I have endeavored, as far as my space would allow, to give an impartial portrait

of this extraordinary criminal. I have attempted neither to whiten nor to blacken his memory. Intense envy, egotism, and the worship of an idea were the source of all his crimes. He had no natural thirst for murder, like Marat and Danton ; he was simply callous—utterly devoid of all human pity—using murder as a means towards an end. The man who abstracts himself from humanity, and becomes the fanatic of an idea, is more dangerous than a hundred Neros. Had he lived fifty years before his time, he would have lived and died a respected and respectable citizen. He would have been an ardent opponent of all blood-spilling—a theoretical republican, sighing at times

over the impossibility of carrying out his theory, but resigned to contemplate it as a theory. A cold, self-opinionated man he would still have been, but endowed with every virtue that the correct world loves to praise. You meet such men every day ; they abound in every community. Had he possessed physical and moral courage, and a more expansive political creed, he might have become a great, wise, though severe ruler ; but, lacking those qualities, he became a scourge of God—the most wholesale and atrocious murderer, and the most revolting, contemptible, and utterly redeemless criminal of ancient or modern times !

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#### MR. TENNYSON'S POETRY.

[Concluded from page 736, Vol. XIII.]

"IN MEMORIAM" was Mr. Tennyson's next poem. The introduction bears the date 1849. The poem was published in 1850. It is analogous to a series of sonnets, and is addressed to a friend, Arthur Hallam, who had died at Vienna seventeen years before. The metre is the same throughout—quatrains of lines of eight syllables each, the first and last lines rhyming together, and the two middle ones. Each number consists of three, generally four, sometimes as many as thirty (lxxiv.) of these stanzas. The form then is as wide as possible from that of the strictly defined and invariable sonnet ; but the whole spirit of the poem is the spirit of the sonnet as understood by Dante, Petrarch, and Shakespeare. The sonnet is devoted to the philosophy of love. Whether the chosen object of love is a real mistress idealized, as Dante's and Petrarch's, or a real mistress realized, as Spenser's, or one quite ideal, as Drayton's, or a living man, like Shakespeare's friend, or a dead mistress, as in Petrarch's second series of sonnets, or a dead friend, as in "In Memoriam," makes no great matter to the course of the poem. The subject is always the scale or ladder of love ; whether this is approached in a pre-established scholastic manner, as was apparently the case with Dante and Petrarch, perhaps even with Shakespeare, or whether the method is evolved from the isolated self-consciousness of the individual poet, an analogous result is always obtained.

The courses of the human affections proceed by rules as really as the processes of the human reason. There is a logic of love as truly as there is a logic of deduction or induction. From the nature of the case its rules are not capable of so intelligible an exposition as the rules of the logic of reasoning ; but Plato has sketched their movement as really as Aristotle has exhibited the movement of apprehension, judgment, and syllogism ; and the great sonneteers have exhibited this movement in its concrete expression with as much mastery and clearness as that with which philosophers and men of science have exhibited the applications of logic to observed facts. The sonneteers of the sixteenth century were generally copyists of each other and of Petrarch ; Mr. Tennyson's originality consists in this—that he has taken their main thought, and translated it out of mediaeval objectivity and definiteness into the subjectivity of modern idealism and the indefiniteness of the Lake school. That he has made a profound study of the sixteenth-century models appears from many turns of thought and expression. One instance will serve to show the direction in which these imitations may be looked for. Shakespeare twice in his sonnets uses the expression "fool of time" for an entity which like a weather-cock changes with changing circumstances, and goes through its movements like a windmill by the impact of external force, not by its own self-deter-

mination. Mr. Tennyson develops this phrase, and talks of "fools of habit," men who are led by habit and not reason, or of the will being the "fool of loss," when its grief overmasters it and dries up its forces. It is thus that he builds on his models, not by imitation of what they have actually done, but by continuing to build on the lines which they laid down, but on which they had erected nothing. He might have found a model in Petrarch's "sonetti e canzoni in morte di madonna Laura;" but he takes nothing from them except a general and far-off resemblance. Their first intention is objective—to speak of Laura, and to make her name live. Mr. Tennyson doubtless had a like intention with regard to his friend; indeed, he gives many more particulars of his character than Petrarch gives of Laura; but his first intention was to show how grief may be transfigured by love, and may become the master of the soul, to instruct it in all truth, and to lead it into all good. If men, he says in the first sonnet, may rise on stepping-stones of their dead selves to higher things, cannot they also turn their losses into gain, and make their tears blossom and bear fruit? Grief then, its uses and the method of utilizing it, make up the primary notion of "In Memoriam." Its motto might be Constance's:

"Grief fills the room up of my absent child,  
Lies in his bed, walks up and down with me,  
Puts on his pretty looks, repeats his words,  
Remembers me of all his gracious parts,  
Stuff's out his vacant garments with his form—  
Then, have I reason to be fond of grief?"

Mr. Tennyson's grief, or rather his mourning mind, in the same way puts on the form of his lost friend, reproduces his image in itself, and moulds itself upon the form and circumstances and mental habits of the departed one. Grief thus becomes personified, and so may be at least the proxy for, if not the real presence of, the absent friend; and the poet's soul, in espousing its own sorrow, marries itself to him:

"O sorrow, wilt thou live with me,  
No casual mistress, but a wife,  
My bosom friend and half of life."

In this way the union of two souls, which is always the conclusion of the premises of love, is arrived at. But the means are somewhat different from those usually employed. For instance, in Mr. Tennyson's school the beloved object is only a loan

of nature. When it drops away, love is left; and ripened love is the end for which the friend was lent. In the old sonneteers one object of love only fades away to be replaced by another. As each beloved one falls away by death or otherwise, it reveals a better and higher object behind it, on which the widowed love can fasten itself, not forgetting what it has lost, but finding it again in a better and higher form in the new object, which thus becomes "the grave where buried love doth live," the master image in which the images of all former loves may be viewed. In the ultimate outcome no doubt both processes agree. The most subjective of poets must project his own image on the world, and make it his object. And whether the object is the poet's own mind filled with the image and recollections of a lost friend, or whether it is the lost friend himself idealized in the memory of the poet, the same words must necessarily be used, the same affections will be evoked, and the same thoughts will be communicated to the reader. With Mr. Tennyson the lost friend himself becomes the higher object. Death transfigures him; he becomes an angelic spirit, of mighty but undefined powers, a guardian to protect, a teacher to prompt, a form into which any ideal of excellence in wisdom or knowledge can be fitted. He becomes the impersonation of love, and thus becomes deified:

" Known and unknown, human, divine!  
Sweet human hand and lips and eye,  
Dear heavenly friend that canst not die,  
Mine, mine for ever, ever mine!"

As he grows more distant for knowledge he grows nearer for love. His known outline fades away, becomes indefinite and elastic enough to comprehend all objects of love, and therefore to have a kind of divine omnipresence, "loved deeper, darker understood:"

" Thy voice is on the rolling air,  
I hear thee when the waters run,  
Thou standest in the rising sun,  
And in the setting thou art fair."

But this identification of the limited with the unlimited is not pantheistic, because for Mr. Tennyson the limited strictly keeps its own individuality and personality. It is enclosed, not absorbed:

" Eternal form shall still divide  
The eternal soul from all beside."

Thus the lover still retains the love for the distinct personality, and is at the same time able to give a wellnigh infinite expansion to that personality, to invoke its presence that it may aid and infuse good thoughts, to tremble before it, to treat it, in a word, as the Catholic devotee treats his favorite saint. That this is the necessary development of love all the philosophers who have treated most deeply upon it are agreed, in spite of the reclamations of the divines.

The progress of the poem is marked quite as much by its chronological succession as by the development of its idea. The Christmas season, as it comes round, is duly noted, and the departed friend's birthdays are religiously kept. Thus we find that three years are assigned as the period of the growth of the idea, from the mere blank feeling of loss with which the poem begins to the apotheosis of the departed with which it ends. The poet does not conceal from himself or his readers that all this conclusion is a dream of his own, his "own phantom chanting hymns," expressive of his

"trust that those we call the dead  
Are breathers of an ampler day  
For ever nobler ends."

But his dream must be true, because it is so noble :

"In my spirit will I dwell,  
And dream my dream and hold it true."

And thus he considers himself entitled to describe his lost friend not as what he really was, but as what love tells him he would have been, with a lovelier hue lent to him by distance. He considers his own spirit as wife to the departed spirit, and therefore entitled to speak of him as the widow is entitled to speak of her lost paragon.

But the poem embraces more than the old sonneteers usually included in their intention. They generally treated of love in an abstract way, and therefore generalized all the lovable qualities which they celebrated in such a manner that no distinct image of the individuality of the person celebrated can be extracted from their sonnets. Mr. Tennyson seems to have resolved to avoid this defect; but his resolution, while it has added interest to the portrait of his friend, has also added a polemical tone to the poem, which is slightly out of time with the dominant chord of

sorrow. For when a strongly individualized portrait is held up as the great ideal, which at last becomes everywhere present, the individual qualities of the soul thus portrayed become rules and laws imposed upon men dogmatically. Mr. Tennyson's doctrine may be sound enough; but it is only one of the many codes possible to be insisted on as the guides of life, and is polemically exalted above all others. It is doubtless an excellent rule to meet all perplexities and doubts manfully, without shirking them, and yet to avoid combating them with the sole arms of reason and knowledge without the aid of obedience, reverence, and wisdom. The ideal friend

"touched a jarring lyre at first,  
But ever strove to make it true."

Perplex in faith, but pure in deeds,  
At last he beat his music out:  
There lives more faith in honest doubt,  
Believe me, than in half the creeds.

He fought his doubts and gather'd strength,  
He would not make his judgment blind,  
He faced the spectres of the mind  
And laid them; thus he came at length

To find a stronger faith his own."

And the conclusion of the whole poem is made to be the acquisition of this

"faith that comes of self-control,  
The truths that never can be proved  
Until we close with all we loved  
And all we flow from, soul in soul."

It has been said that "In Memoriam" is tinctured with scepticism. The scepticism, if any, is only that which is found in the religious writings of all those men who, to enhance the greater certainty, treat the lesser as none at all; who, because the next world is so true, resolve that this shall be only a dream, and so, because they throw doubt upon that which is seen and known, are scarcely credited when they explain that they do so only to magnify the undoubtfulness of that which is invisible and unknown.

It will be evident that the poem is in its matter and form perfectly homogeneous to the early poetical attitude of Mr. Tennyson. It is a dream; it is a progress of feelings, not of action; it is moreover a process where the change is said to be brought about by an external influence, and not to be due only to internal self-development. Even the poetry

itself is attributed to a force over which the poet has no control :

"I do but sing because I must,  
And pipe but as the linnets sing."

The work is therefore, though published later, earlier in relation to the poet's development than "The Princess." Perhaps it was begun or designed shortly after Arthur Hallam's death, in 1833. Some of it seems to have been in course of composition at the same time as certain of the poems published in 1842. Thus in "Love and Duty" there is the same development of thought as here in No. 27 :

"Tis better to have loved and lost,  
Than never to have loved at all ;"

and in "The Two Voices" there are the same turns of thought as in No. 54, about nature :

"So careful of the type she seems,  
So careless of the single life."

But in these quasi-sonnets Mr. Tennyson's quietism found its most natural outlet. The dreaminess and stillness which reign throughout the poem flow in accordance with its idea. There is no suspicion of contrivance or manufacture. The art is concealed. It does not seem built on theory, as in "The Lotos-Eaters." It does not suggest as its origin that the poet said to himself, "Now let us dream," or, "Let us pretend to be dreaming." The cause was adequate to the effect; and the result is a poem which, on the whole, may claim a place, if not in the same rank, at least in the same category as Petrarch's sonnets and canzonets, or Shakespeare's sonnets.

"Maud" was published in 1855. It is both psychologically in sentiment, and artistically in expression, a development of the motive of "Locksley Hall." There are naturally two directions in which Mr. Tennyson's poetical psychology tends. In representing man determined by circumstances and floating down the stream, he may exhibit him either on a placid current of love or grief, or on a boiling and surging torrent of anger and hate. The two courses have this altogether in common, that both represent man as the playthings of an external power :

"We are puppets, man in his pride, and beauty  
fair in her flower.  
Do we move ourselves, or are we moved by an  
unseen hand at a game?"

The hero of "Locksley Hall" and the

hero of "Maud" both excuse themselves for feelings and judgments which they know are not morally defensible by an antecedent suffering which has deprived their will of its power, and has made them impotent to resist the onset of passion. Both are strong muscular men, capable of bodily and even mental endurance as soldiers and officers, but incapable of mastering their passions, expelling their dreams of revenge, or denying themselves the morose delight of brooding over such dreams. It is not without reason that the poet chooses men of this class to be the vehicles of his socialistic complaints against that silent war between every man and his neighbor which grows up during a long peace. When Shakespeare has to make analogous complaints he puts them into the mouths of Tullus Aufidius's serving-men. Peace, they say, rusts iron, increases tailors, breeds ballad-makers; it is a very apoplexy, a lethargy, mulled, deaf, sleepy, insensible, and a grievous wronger of neighborhood; it makes men hate one another, because they have less need of each other. If Mr. Tennyson puts charges like these into more educated lips, he too provides that the servile tincture shall not be wanting; he makes the speaker the slave of the ever-present memory of a great wrong. As the Elizabethan dramatist would put unpalatable truths into the mouths of his fools, so Mr. Tennyson, willing to ventilate his feelings about social scandals, devises a character who would naturally inveigh against them in unmeasured terms. Such characters may be men of the school of Shylock, whose wrongs partly justify their ferocity, and whose eloquence and invective beget a desire to take away the just grounds of their malice. The life of the hero of "Locksley Hall" is blighted by being crossed in love: that of the hero of "Maud," by a gigantic swindle practised on his father, which caused the old man's suicide. The boy's memory is oppressed with the remembrance of the night when he was waked

"By a shuffled step, by a dead weight trailed, by  
a whispered fright,"

and "the shrill-edged shriek of a mother," when the corpse was brought home. He grows up lonely, parsimonious, revengeful. He is cured by the love of Maud, the daughter of the man who had ruined

his father. But Maud's brother, scented and "curled like an Assyrian bull," comes between them. He strikes his sister's lover, and is shot by him in a duel. The murderer flies, returns to find Maud dead, becomes mad, and is restored to reason by the national upheaval at the beginning of the Crimean War. The poem is a lyric monologue, consisting of envious invective, gradually mastered by love, then the idyllic joy of love, then anger, despair, madness, and patriotic enthusiasm. There is rush and motion enough in it; but the rush is that of a planet rather than that of a spirit. The movement is determined by the motive; and the motive is not created by the will of the man moved. It is a helpless whirl of a man overmastered by a self-imposed necessity in the form of passion. Such overmastering fatality is a phase of poetical experience which some of the greatest poets have almost exclusively fastened upon. It is the subject-matter of Aeschylus's monotonous sublimity. It is the ground idea of Shakespeare's Richard III. But Shakespeare put into no other of his dramas the classical background of an overbearing fate. To have exhibited life under this aspect once was enough: the great and universal artist turned himself to some other of nature's myriad facets. But Mr. Tennyson has not this command over variety. He can sing his divisions only on one tone. With him love is lord of all, the sovereign balm or mortal bane of the spirit. For good or evil love is the only real power which his poetry recognizes. The very bitterness of the hero of "Maud" is distilled out of his love for his father, and out of his patient self-sacrifice to the service of his widowed and waning mother. The love of Maud sweetens this bitterness; but her loss drives him back upon himself, and nurses his bitterness into madness.

As Mr. Tennyson carefully adapted his music to the dreamy idleness of his "Lotos-Eaters," so he as carefully adapts his metre to the irregular and hard thoughts in "Maud." It begins with the metre of "Locksley Hall"—the long trimeter iambic, generally with one or two anapæsts in one or two of the even places, and sometimes with anapæsts in every place, as in the line :

"I am sick of the hall and the hill, I am sick of the moor and the main."

But a great change in character is introduced by making the alternate lines rhyme, instead of the consecutive ones. With such long lines this distance between the jingles gives a notion of rough, uneven motion which the poet clearly studied to produce. In the third section the metre changes the iambus and anapest for the trochee and dactyl. It answers to the first irresistible impression of Maud on the man's mind, and his vain efforts to resist it:

"Cold and clear-cut face, why come you so cruelly  
meek,  
Breaking a slumber in which... spleenful folly  
was drowned?"

In the ninth section the lyric and love element begins to predominate, and all runs comparatively smoothly till the hero sings his joy at Maud's love for him. Perhaps here the music may be meant to imitate the bumping and thumping of the happy heart, which deliriously denies that it does bump, and asserts that it never before beat so smoothly :

"I have led her home, my love, my only friend;  
There is none like her, none;  
And never yet so warmly ran my blood,  
And sweetly on and on,  
Calming itself to the long-wished-for end,  
Full to the banks, close on the promised good."

Perhaps the violence of passion hardly justifies the ruggedness of the measure. The love lyrics that succeed are many of them very beautiful. One of them, "Come into the garden, Maud," at once struck the fancy of musicians, and seemed spontaneously to clothe itself in melody. In the second part, the lyrics are meant to represent the deadness of the heart that forfeited its good just when enjoyment was within its grasp—a living deadness, gradually degenerating into the crisis of madness. The madness is found in the fifth section of the second part. It is madness with a method in it, a cloak to cover the satiric venom of the dead heart, rather than genuine impulsive madness. It is the madness rather of Edgar, than of Lear, of Hamlet than of Ophelia. The man fancies he is dead and buried, and sings :

"Wretchedest age, since Time began,  
They cannot even bury a man;  
And tho' we paid our tithes in the days that  
are gone  
Not a bell was rung, not a prayer was read;  
It is that which makes us loud in the world of  
the dead;

There is none that does his work, not one ;  
 A touch of their office might have sufficed,  
 But the churchmen fair would kill their church,  
 As the churches have killed their Christ."

Mr. Tennyson has chosen a psychological subject which could only be treated with sovereign innerrancy by the poet of *Hamlet* and *Lear*. Among living Englishmen it is not the Laureate, but Mr. Browning, who approaches nearest to the ideal treatment of like situations, whether we regard his matter, the subtlety of his thoughts, or the methodical ruggedness of his metre, which is his ~~so~~ <sup>own</sup>.

The "Ode on the Death of the Duke of Wellington" was fitly bound up with "Maud," as a piece in the same musical key; but its discords and halting progressions are less justified by its thoughts than are those in "Maud." In fact, it reads like a Laureate's obligato accompaniment to a national event, prompted by duty and aspiration instead of creative energy and inspiration. The form is justified by the circumstances of the time, not by the thoughts of the poem. It harmonized with the ceremonies of the day; it is not in harmony with the event in retrospect. Indeed, the thoughts are almost painfully commonplace. The author seems to have considered himself the mouthpiece of the nation, bound to say in verse what the newspapers said in prose on the occasion, and to dress up the thoughts of journalists in his own language. And this is only a type of Mr. Tennyson's political position. His ideas appear in general to be those of the majority. He yields to the impulses of the time, or rather of the present, for the week or month often reverses the judgment of the day or hour. Thus he assumes the whole war fervor of 1854 at the end of "Maud," as he afterwards assumes the whole hero-worship of the nation towards the Duke of Wellington and the Prince Consort, to whose memory he dedicates the "Idylls of the King." Among the other poems printed with "Maud" is "The Brook," which proves that, in the midst of all his painful endeavors to assimilate his music to that of which Walt Whitman may stand as the symbol, he still cultivated his old ear, and kept up his unrivaled power of idyllic composition. "Maud" seems to be the final outcome of a vein which is certainly not exhausted, but which Mr. Tennyson does not seem able to work with perfect success.

In the "Idylls of the King" he carried to perfection the kind of poetry which had always flowed from him in the happiest manner. We have seen how many-sided and versatile the idyll becomes in his hands. It is no longer a mere pastoral; but, remaining fundamentally idyllic, it borrows from every other species of poetry, and becomes dramatic, epic, or lyrical as well. The "Idylls of the King" are properly idyllic episodes of the epic of Arthur, and are in themselves far more like cantos of an epic poem than the pretended eleventh book of the supposed "Epic" which was published in 1842. They are however fundamentally idyllic. They all have their centre and their base in love. Each idyll exhibits love in a distinct relation:—the adoring but jealous husband and the perfect wife, in "Enid"; Solomon snared by the wiles of the harlot, in "Vivien"; a man so true to his false love that he lets his true love die of a broken heart, in "Elaine"; the repentance of the false wife and the Christian forgiveness of the wronged husband, in "Guinevere." There is plenty of action in the stories; but the author, true to his poetic nature, exhibits it as it were through a veil—a dim medium which seems to deprive action of its sudden resolve, and to make it appear simply as the necessary result of combinations long preparing. The persons drift helplessly into action, instead of being arbiters of their own choice. Thus we get a dream of action instead of its imaged reality. The will is the great test of the waking state: freedom is absent from dream. In dreams character is moulded by circumstances: awake, man is in a great measure independent of circumstance. He builds his character out of circumstance, but is not himself built up by the stones which are only the materials of the edifice. Hence the correlation of dreaminess and fate in poetry. Mr. Tennyson exemplifies in his works this correlation; in order to maintain his ideal stillness in passages so eventful as those of the "Idylls of the King," he is obliged to conduct his personages with closed eyes, by the spells of presentiments and voices which re-echo in their ears, leading them, not against their will, but by compelling their will and making it too strong to assert its own deliberate freedom. Thus when Elaine insists upon going to nurse the wounded Lancelot, her father says to her:

"Being so very wilful you must go."  
 So she goes. But in her going,  
 "Her father's latest word hummed in her ear,  
 'Being so very wilful you must go,'  
 And changed itself and echoed in her heart,  
 'Being so very wilful you must die.'"

And then, her task over, and Lancelot  
 not being to be won,

"As a little helpless innocent bird,  
 That has but one plain passage of few notes,  
 Will sing the simple passage o'er and o'er  
 For all an April morning, till the ear  
 Wearies to hear it, so the simple maid  
 Went half the night repeating 'Must I die?'"

But before she had seen Lancelot, Elaine  
 had dreamed

"That some one put this diamond in her hand,  
 And that it was too slippery to be held,  
 And slipt and fell into some pool or stream"—

a dream which presages the whole course of the story. The presentiments in "Guinevere" are more normal, inasmuch as the presentiment of evil is one of the natural consequences of the consciousness of sin. The Queen shuddering at Lancelot's attack on Modred, as half-foreseeing that the subtle beast would track her guilt; or seeing in the darkness grim faces, and vague spiritual fears; or dreaming awful dreams of standing in a vast plain before the setting sun, from which a ghastly something would rush towards her; or, in her dread, commanding Lancelot to go, but granting him one last interview whereby her presentiments of evil were all fulfilled—this is a natural picture of guilt. The subject was one in which Mr. Tennyson's power had its proper scope; and the choice of the subject shows his consciousness of that power. In "Vivien" the fatality of the action is helped on by the slow old age of Merlin the wise, whom the enchantress catches in her toils. He knows well, and ever learns better, the evil, untrustworthy nature of Vivien, and is more and more persuaded and resolved not to tell her his secret. But these resolutions are only the waves on the surface. His fluttering old heart is flattened and cajoled by the pretended affection of the young girl; and this current is ever waxing in him. The wind of reason may blow against it, and may raise ever angrier waves on its surface; they may seem to course upwards; but the stream still flows downwards to its destined precipice. Like another Samson, he intrusts

his secret to a Delilah who has deceived him, and whom he has found out; and on the first opportunity his Delilah makes an end of him. In "Enid," the stolid, ox-like, beef-witted jealousy of Geraint carries out the same tone of coloring. Nothing could make his conduct tolerable except the notion that, like Ajax when he slew the sheep, he was horn-mad. His deeds are only reasonable with the reason of dreams: the logic of real life condemns them as absurdities.

In these idylls, Mr. Tennyson's refined style reached its perfection. In general, they exhibit noble thoughts in noble language. In special, there is a curious union of the modern Miltonic classicism, framed on Homeric and not Latin principles, with the romantic and sententious diction of the sixteenth century. The Elizabethan sententiousness is exemplified in such passages as this:

"When I was up so high in pride  
 That I was halfway down the slope to hell,  
 By overthrowing me you threw me higher."

A still more characteristic instance is the remark on Lancelot's refusal of Elaine's love on account of his passion for Guinevere:

"His honor rooted in dishonor stood,  
 And faith unfaithful kept him falsely true."

Clearly Mr. Tennyson is not one who, like Ben Jonson, would tax Shakespeare with ridiculousness for the verse, "Cæsar did never wrong but with just cause;" nor, like Mr. Thorpe, would he correct the forcible phrase of the Saxon chronicle which tells how William "took many a mark of gold by right, and with great unright, from his people, for little need." This kind of paradoxical sententiousness is almost as classical as it is romantic. In Mr. Tennyson it has this double relationship, and is one of the means by which his romanticism and classicism are fused together.

But amidst all his metaphysical imagery, he always evinces a truly idyllic contemplation of nature in his comparisons and descriptions. Of this kind is his favorite comparison of a watcher to a robin eying the delver; his description of people mounting a hill, and disappearing behind it, who

"Shewed themselves against the sky, and sank;"  
 of ivy against a ruin, which looked

"A knot, beneath, of snakes; aloft, a grove;" of men fleeing in panic, "like a shoal of darting fish," which

"Come slipping o'er their shadows on the sand,  
But if a man who stands upon the brink  
But lift a shining hand against the sun  
There is not left the twinkle of a fin;"

of the tumultuous eating of the brigands in Earl Doorn's Hall,

"Feeding like horses when you hear them feed;" and of Arthur cashiering the unjust judges of his kingdom as

"Men weed the white horse on the Berkshire hills,  
To keep him bright and clean as heretofore."

So again Guinevere's remark to Lancelot, about Arthur, which combines the metaphysical with the physical:

"He is all fault who hath no fault at all,  
For who loves me must have a touch of earth;  
The low sun makes the color."

In a different direction, a passage on the way in which Elaine in her meditations pored over Lancelot's face, clearly exhibits Mr. Tennyson's idea of art:

"As when a painter, poring on a face,  
Divinely through all hindrance finds the man  
Behind it, and so paints him that his face,  
The shape and color of a mind and life,  
Lives for his children, ever at its best."

Among these beauties must be mentioned the three lyrics in the three first idylls—lyrics written, as usual in Mr. Tennyson's blank-verse poems, in triplets, and here in rhyme. They show a great advance upon those in "The Princess," beautiful as the earlier ones were.

In "Enoch Arden," published in 1865, the presentiment of a fatality, which only forms the dim background in the "Idylls of the King," is brought out in full consciousness into the clear light of day. The story is idyllic; but it might be an episode in an epic. Its subject is love, courtship, and marriage; but its culminating interest lies in the self-mastery of the husband, who returns as from the dead after ten years' absence, finds his wife remarried, and then, not to break up the happiness of the new home which he has just seen at night through the garden window, conquers his own will, resigns all the hopes which have buoyed him up in his long absence, keeps his secret, lives as a poor laborer when he might live as a master, and finally dies, having only confided his secret to one. The subject gives a tragic dignity to the

idyll, which Mr. Tennyson hardly ventured upon before he had written the "Idylls of the King." The special peculiarity, however, of the poem, is the dominant force of presentiment, and forecast. The story begins with the wooing of the two boys, who eventually become the successive husbands of Annie Lee.

"This is my house, and this my little wife," says Enoch, the stronger:

"Mine too," said Philip, "turn and turn about."  
And then quarrels are settled by the little maiden, speaking oracularly in her innocence, and declaring "she would be a little wife to both." With this comes the fixed determination of the will:

"Enoch set  
A purpose evermore before his eyes  
To hoard,"

so as to make a home for Annie. Annie accepts him; Philip sees the pair sitting hand in hand, and reads his doom. Henceforth he dwells apart,

"Bearing a life-long hunger in his heart."

Then, after seven years of prosperity, comes an accident which half ruins Enoch. In his sickness

"He seemed, as in a nightmare of the night  
To see his children leading evermore  
Low miserable lives of hand-to-mouth,  
And her he loved a beggar."

So he prays; and in answer to his prayer he is offered, and accepts, a berth in a ship China-bound. Annie fights against the resolve,

"Sure that all evil would come out of it."

But Enoch is steadfast, sells his boats, sets up Annie in a small shop, and when his time comes departs. He comforts his desponding wife: "I'll be back, my girl, before you know it;" but she answers:

"O Enoch, you are wise,  
And yet for all your wisdom well know I  
That I shall look upon your face no more—  
Well then, said Enoch, I shall look on yours."

In his absence her business fails; her youngest child dies; and the family, reduced almost to beggary, is obliged to depend on the charity of Philip, the old rejected suitor. Annie accepts it because she believes that

"Enoch lives; that is borne in upon me,  
He will repay you."

But time passes; nothing is heard of

Enoch, who is exercising his patience under the palm-trees on a lonely coral island, where he has been shipwrecked. Philip proposes that Annie should marry him ; and Annie answers :

" If Enoch comes—but Enoch will not come—  
Yet wait a year."

He waits the year, and another half-year. Annie, urged by the talk of the town and the silent reproaches of her children, prays for a sign, opens the Bible, and puts her finger on the text "under a palm-tree." She sees Enoch so in a dream, and interprets it that he is in paradise. So Philip and she are married ; but she is never happy till her child is born. On the other side Enoch, in his palm-island, in the deaths of his companions reads his own warning, "wait." Once on his lonely island he hears the wedding-bells, which make him shudder. He is at last rescued, and returns, to find his home broken up. He looks upon Annie's face once, and determines that she never, even in death, shall look upon his, so that her new happiness may not be blighted. At last the foreknowledge comes to him that he is to die within three days. Of course, the pathos and nobleness of the work are not made up of this constraining force of predestination, reflected in the prophetic gleams of presentiment, any more than the grandeur of Shakespeare's Richard III. is made up of the fulfilment upon him of the curses of his victims ; but in both instances the fateful element predominates, and is made to give a prevalent coloring to the poetry. In "Enoch Arden" this coloring harmonizes with the long-drawn patience of the actors, whose will seems not to be the versatile, ever-changing, ever-ready, instrument which poets of the highest order are able to paint, but rather a slow growth, unresistingly moulded by higher influences. And the fatality not only serves to enforce Mr. Tennyson's idea of the slow and fixed growth of his vegetating love, but also directly ennobles the scenes out of common life which he relates. It makes one feel that the loves of the fisherman and miller are as great in themselves as the loves of princes, and that the same Providence takes equal forethought for the good of the lowest and for that of the highest among the ranks of men.

"Aylmer's Field" is a kind of new and improved edition of "Maud," reduced from

a lyric to an idyll. It takes up the old story, so favorite a one with Mr. Tennyson, of affections crossed by pride. There is the angel daughter, the foolish mother, the father possessed by one idea—the pride of his race and estate—who, in his determination not to let his daughter marry her old playmate, kills her, him, himself, and his wife, with the dagger of sorrow. The author, true to his chosen and now almost necessary attitude, surrounds the story with all the accidents which serve to draw out and prolong the acts of the will, and to give them a dreamy instead of a wakeful character. As usual, the landscape sympathizes with this inertia of the men. It ministers their opiate :

" A land of hops and poppy-mingled corn,  
Little about it stirring save a brook,  
A sleepy land,"

where Aylmers at the hall and Averills at the rectory were immemorial. The Rector's younger brother is the playmate of Edith Aylmer, the heiress. He is

" Ever welcome at the hall,  
On whose dull sameness his full tide of youth  
Broke with a phosphorescence cheering even  
My lady."

The word "phosphorescence" is characteristic of Mr. Tennyson ; no other word could have reduced flashing and brilliant intelligence to so inert and calm an image. Phosphorescence is only the pale ghost of fire—the fire of dreamland, that burns not and hardly illuminates, a fire which seems separated by an infinite distance from other fires, like the soul of the dying man from his friends. It would be a more hopeful undertaking to kindle a match by the ray of the dog-star than by the lantern of the glow-worm. Then there is the baronet himself,

" dull and self-involved,  
Tall and erect,"

but "mighty courteous in the main," who thinks no more of the intimacy of Leolin with his daughter than of the old Newfoundland's familiarity with her. But when he finds out the truth, then comes the dull persistent persecution, ending in Edith's death. The absent lover has a sympathetic presentiment of her fate ; and when he learns it is a fact he slays himself with an ornamental dagger, her mysteriously fatal gift. The moral is put into the mouth of the Rector, who has to preach at the maiden's funeral. It is the same sermon against

the "fee-farm Cupid" which Thackeray loved to preach. Mr. Tennyson had hitherto put it into the mouths of half-crazy and vindictive madmen in "Locksley Hall" and "Maud :" here it softened, though the Rector's grief for the frenzied suicide of his brother throws him somewhat into the same passionate position as the earlier apostles of the doctrine. Perhaps Mr. Tennyson thinks that no one can really see the harm of these matches for convenience except those who have suffered in consequence of them.

The diction of "Enoch Arden" and "Aylmer's Field" is without the studied archaism of the "Idylls of the King," and without the conscious imitations of "The Princess." It is the style which Mr. Tennyson has created for himself, to paint the modern world and real life ; it is the gradually worked-up result of long and profound artistic study. It is also pregnant with sweet little idyllic conceits, which show, what his early poems did not show, a direct familiarity with nature, not a study of her in the studio of the painter and sculptor. Such are these lines, the second more than the first :

"Pity, the violet on the tyrant's grave."

"The rabbit fondles his own harmless face."

"Sea Dreams" is the story of a married couple who take their sick child to a bathing-place. There the man meets an oily preacher-like banker who has swindled him out of his money. The helpless wrath of the man is kindled by the swindler's unctuous greeting ; and the plot of the poem, such as it is, consists in the wife's trying to make her husband more charitable by the aid of his own and her dreams. They however do not wring the desired forgiveness from him till she tells him that the man has died suddenly. He receives the news with an epigram which felicitously appropriates the idea of a well-known line of Rogers :

"He has a heart, and gets his speeches by it."

Mr. Tennyson makes his clerk exclaim :

"Dead ? he ? of heart disease ? what heart had he  
To die of ?"

Then the woman inculcates the moral which Mr. Tennyson has steadily from the first inculcated from time to time—the moral of the ultimate restitution of all things, when the evil shall become good again :

"If there be  
A devil in man, there is an angel too. . . .  
His angel broke his heart ;"

and the man, after a struggle, and with a protest against the doctrine,

"His deeds yet live, the worst is yet to come," adds, "I do forgive him." There is not much in the poem but its sweet diction ; and Mr. Tennyson's music is so sweet that he sometimes charms men into listening to what is intrinsically not worth the pains.

"The Grandmother" is the sorrow of an old woman who has just heard of her eldest son's death at the age of more than seventy years. Her grief has to break through the mists of a memory grown stiff and solid, retaining ancient images and admitting no new ones. She talks of the old man just gone as he was when she first nursed him, chubby and rosy, on her knees. The slowly moving, half-frozen intelligence, the misty affections fixed not on what is but on what was, the weariness of life in the woman of fourscore and ten, form a subject exactly suited to Mr. Tennyson's ideal, and are therefore hit off with rare power and pathos.

The "Northern Farmer" is a happy solution of Mendelssohn's doubt whether there was in nature any such thing as a serious scherzo. The Boeotian dialect, the unsuspecting frankness of the dying farmer, who says exactly what he thinks, without the least consciousness that his thoughts are shocking to pious ears, and justifies all his hard dealings by the plea that he had done his duty by the land, by the parson, by the squire, and by "Bessy Marris's barn"—all this makes the poem itself highly humorous, with a humor akin to Thackeray's. The optimism of the farmer, who considers that every man in doing what he does is doing his duty, and that when duties clash each man's clear path is to keep his own rule, is excellent ; and so is his determination to stick to his own rule of a pint of ale nightly and a quart on market nights, spite of doctor and parson, though they perhaps do their duty too in forbidding it. The stolid fixed idea in his head is one of those materialized statuesque mental states which Mr. Tennyson has always chosen for his favorite nurselings.

Among the miscellanies of 1865, "Tithonus," which had appeared earlier in a periodical, is the most noteworthy. This

classical fable is one of those which readily precipitate themselves round the pole of Mr. Tennyson's battery. The old man, the bed-fellow of Aurora, who had obtained from her the sad gift of immortality, forgetting to couple his request with that for perpetual youth, now vainly seeks release and envies the

"Happy men that have the power to die,  
And the still happier dead."

"The Holy Grail," which was published in 1870, completes the "Idylls of the King," and unites them into a connected epic. It gives an introduction called "The Coming of Arthur," and two new idylls, "The Holy Grail" and "Pelleas and Ettarre," whose place is to be between "Elaine" and "Guinevere;" the conclusion is "The Passing of Arthur." This is identical with the "Morte d'Arthur" of 1842, except that a new beginning is added, and it is divested of the introduction and epilogue, which on its first appearance explained it to be the eleventh canto of a destroyed epic. This poem is said to be "connected with the rest in accordance with an early project of the author's." Mr. Tennyson seems to have early projected an epic poem on Arthur, but scarcely such a one as is now made up. In the first design it seems to have been intended to allow the magical and mysterious machinery of the mediæval legend to give the predominant tone to the poem. This tone was supreme in the "Morte d'Arthur;" in the "Idylls of the King" it had retired to the background, thrust out of the way, but not out of mind. When the poem was to be completed in a way to allow the early canto to be used as its conclusion, the new additions had necessarily to be made to harmonize with both the parts which had to be joined. Hence these new poems have an earlier smack than the "Idylls of the King." They stand between them and the "Morte d'Arthur." Or, to speak with more speciality, "The Coming of Arthur" and "The Holy Grail," especially the latter, are entirely magical and mystical; while "Pelleas and Ettarre" is a love idyll, a study of a different phase of love, that of the honorable and inexperienced boy for the mocking jilt who only begins to love him really when she has lost him and turned his true love into a fixed resolve to contemn. Thus the completed epic of

Arthur carefully eschews all that is epic in the legend. It extracts from the story its fantastic and its pathetic episodes, and occupies itself entirely with them, only affording passing allusions and brief studies to the epic parts of the story, which concern the conduct of Arthur as hero, king, and saviour of his country.

In "The Holy Grail," amidst the fantastic and beautiful mediæval legends, Mr. Tennyson contrives to teach his lesson. Arthur, flower of kings, is, as Mr. Tennyson images him, much too commonplace, or too sensible, to go on the quest. He has his definite work to do, which done, but not before, he can afford to dream. After it is done he says :

"Let visions of the night or of the day  
Come, as they will; and many a time they come,  
Until this earth he walks on seems not earth,  
This light that strikes his eyeball is not light,  
This air that smites his forehead is not air,  
But vision—yea, his very hand and foot—  
In moments when he feels he cannot die,  
And knows himself no vision to himself,  
Nor the high God a vision, nor that one  
Who rose again."

This is as if he said : Our only knowledge of material reality comes from our duties and our needs : we are obliged to act towards things as if they were real : but the moment action ceases and thought begins, then reality begins to evaporate ; all turns to dream : we are certain of nothing but the *cogito ergo sum*, the existence of self as a thinking being ; and on this certainty we build up further certainties—first our immortality, next the being of God, lastly the truth of Christianity. With this conclusion, so strongly held, it is difficult to see why Mr. Tennyson should have been considered a sceptic. He is a sceptic in the same sense, and for the same reason, that Descartes is a sceptic—because his philosophy begins in doubt. But it is not founded on doubt. Doubt in this system merely clears away everything till the doubter comes to the solid ground of indubitable fact. His scepticism is not absolute, its own end and object, but relative, a means to an end ; and that end is certain knowledge. If this is scepticism, the whole thought of the world has been sceptical since Descartes. To Mr. Tennyson, when the whole world of eye and ear has been evaporated to a mere vision, this vision becomes the veil which God weaves both to reveal and conceal Himself :

" Is not the vision He? tho' He be not that which  
He seems?  
Dreams are true while they last, and do we not  
live in dreams?"

This he calls "the higher pantheism." It is a pantheism which asks, "Is He not all but thou?" It therefore leaves to each spirit its own personality, looking upon individual minds perhaps as shuttles in God's great loom, wherein He weaves the veil through which men see Him. But we do not look for severe logic in dreams. A pantheism where all that is individual and finite mind is not God at all, and all that is material is a vision which seems and is not, which is not God but only represents Him, and stands for Him, is not in any true sense Pantheism at all, lower or higher.

Among the poems published with these idylls is one called "Wages," which embodies the first of Arthur's principles—that action is the first duty, and dreaming, if a duty at all, only secondary. Virtue has no wages; if she aim at glory she is not virtue at all:

"She desires no isles of the blest, no quiet seats of  
the just,  
To rest in a golden grove, or to bask in a sum-  
mer sky!  
Give her the wages of going on, and not to  
die."

This confession cuts away all supposition that Mr. Tennyson attributes any real goodness to the quietude which from "The Lotos-Eaters" to his last poem, "Lucretius," he attributes to the highest beatitude:

"the great life which all our greatest fain  
Would follow, centered in eternal calm . . . . .

The gods, who haunt  
The lucid interspace of world and world  
Where never creeps a cloud, or moves a wind,  
Nor ever falls the least white star of snow,  
Nor ever lowest roll of thunder moans,  
Nor sound of human sorrow mounts to mar  
Their sacred everlasting calm! and such,  
Not all so fine, nor so divine a calm,  
Not such, nor all unlike it, man may gain  
Letting his own life go."

It is a characteristic conclusion that Mr. Tennyson should at last put the most finished utterance of his own youthful creed into the mouth of Lucretius, and should have corrected, not to say contradicted it, by the mouth of Arthur, his ideal knight,

"Who reverenced his conscience as his king."

The "Northern Farmer, New Style," is not so successful as the first of the se-

ries. The chief reason is that the humor of the first consisted in the old man's frank contradiction to the most elementary principles of morals, and his justification of his breach of the minor virtues by his asserted observance of the greater ones. After so successful an effort, Mr. Tennyson was not able to resist the temptation of making his northern farmer not exactly an apostle of his evangel, that no young man or young woman is to be thwarted in love or forced to resist the impulse to marry—not exactly an apostle, but a Helot, warning others from the vice by his own hard and remorseless doctrine that a man should marry, not for love, but for "propety." In showing up a maxim so partially acknowledged and capable of such foolish applications, no humorist could achieve the same success as when the unquestioned rule of right and wrong, or some equally unquestioned article of good manners, is the subject of his ironical raillery.

It is clear that "The Window," Mr. Tennyson's last publication, though not his last work, was not intended to weigh for much in the estimate of his poetry. It was written for music, and consists of a cyclus of a dozen lyrics, expressing the progress of a lover's feelings, as he contemplates his mistress's window, through the course of a successful suit. It is a cross between the lyric of the middle part of "Maud" and the old ballad with its pictorial or interjectional burden, like "Heigh-ho to the green holly," or "Green grow the rashes, O." On similar orthodox principles does Mr. Tennyson construct his "When the winds are up in the morning," "Vine, vine, and eglantine," "Bite, frost, bite," and the rest of the present series. Perhaps the old burdens sounded as affected to those who first heard them as these new burdens may to the present generation. By the nature of the case, such interjectional phrases are more cherished for the associations with which familiarity surrounds them than for what they directly denote. There is no reason why Time may not dress up these songs with similar feelings, and carry them down to posterity in the good company to which they evidently aspire.

Of all the characteristics of Mr. Tennyson's poems, perhaps the most general and most comprehensive is its youthfulness. It is not merely the poetry which

the mature guardian would judge to be harmless for youths and maidens, but it is the poetry which is calculated to go most directly to the heart of such unsophisticated readers. It is youthful in its metaphysics, in its religious views, in its views of nature, in its politics, in its social theories, and in its pathos. As for the metaphysics, there can be no philosophy more naturally grateful to the young mind than the notion that matter is a dream ; that it is only by some inexplicable necessity, which it is our happiness to represent as a duty, that we are bound to matter, and made dependent on food and raiment and air and shelter ; but that, our mere duty once accomplished, we are free as air to question the reality of all that we have been doing, and to advance the supreme reality of our visions by denying the reality of our sensations. Then again, the union of a general Christianity with an imaginary and merely sentimental pantheism is a youthful phase of religiosity ; this too stands in close connection with the superstitious reliance on presentiments, on the fatal significance of random words, on chance omens and their mystical sense. Even the religious difficulties which the poet encounters and controverts are those which specially strike the youthful imagination, but hardly live in the reason of the grown man. They are imaginary difficulties. He is quite right in implying that there is no arguing against the argument : "The solar system is one in an inconceivable multitude of similar systems ; therefore Christianity, which makes man the moral centre of the universe, is false." Such fancies can only be evicted by the same door by which they gained possession, that of the feelings. There is no reasoning a man or boy out of an opinion he was never reasoned into. The poetry too is youthful in its appreciation of time. The boy has all life before him, and he has no idea how little is that all. He is ready, with the Greek scholasticus, to accept the custody of a raven in order to see whether it really lives a hundred years. He can therefore put up with the slow motion, molecular and not mechanical, which Mr Tennyson assigns to the passions and development of men. "Had we but world enough, and time," says the old poet,

" My vegetable love should grow  
Vaster than empires and more slow."

However contradictory this tardy action may be to the hot blood of youth, it falls in with the workings of the youth's brain, and with the metaphysics appropriate to his age. He can muse upon the idea, however impatient he might be of having to act upon it. Then the very monotony and narrowness of range in Mr Tennyson's poems have their strict analogues in the youthful intelligence. The young intellect is the home of formal logic—of that logic which carries out the few principles it knows into all their deduced results, without check from the exceptional facts and modifying conditions which only a mature experience can supply. To such an intelligence the very perfection, however monotonous, with which Mr. Tennyson has carried out his ideal, and shed the phosphorescence of dreamland round the images of fact, must be a source of keen pleasure. If it is not logical, it is at least the dreamy substitute for logic, and therefore hyperlogical. For the poet may claim as fairly to be above logic as the Emperor above grammar. Again, Mr. Tennyson's politics have all the graceful characteristics of the youth. Indeed, with a poet's tact, he very often puts his political utterances into the mouths of young university men. There is in these utterances, not the union, but the mixture of three qualities—the refinement which keeps a man apart from violent action in the present, the dreamy faith in the past, and the unborn movement within which whispers of a better future ; all these are found fermenting in the young heart and brain, as well as in Mr. Tennyson's poetry. Then his politics have in them the sympathetic enthusiasm of youth, and all its admiration, not for the hidden great, whom the want of research disables the young from comprehending, but for the main actors on the world's stage, for the acknowledged great, especially when they are in temporary disfavor. He has also, to the full, the patriotic confidence which might be so graceful and becoming in the young midshipman ; and, with all his overflowing disgust at the sordid knaveries of a life given up to trade, he grows dithyrambic over the greedy gripes who becomes a determined pat iot when his country is in danger, and over the dissolute drawler who in the battle can face his enemy like a hero. Such sudden resurrections of his

countrymen out of the mud into the clear firmament seem to give the poet a new confidence in the surpassing excellence of the clay out of which English nature is moulded ; and he has more joy over such repentances than over any amount of steady excellence, wearisome in its sameness. In all this there is a youthfulness of sentiment, which must carry with it all the youthful sympathies left even in mature readers. Such readers will also recognize a wealth of imagination and illustration which could only be looked for from the mind of the grown man, and a versatility and familiarity with the tech-

nical resources of his art which are incompatible with an artist literally youthful. But the satisfaction of the mature reader with Mr. Tennyson will hardly stand the test of too much repetition, and, still less, of comparison with profounder poets. His characters come out not as real men, but as boys and girls acting the parts of men and women in their Christmas games. The words he puts into their mouths are full of beauty and refinement ; but they illustrate only a narrow segment of that humanity which is the privilege of poetry, at its highest power, to exhibit in myriad-sided completeness.

Fraser's Magazine.

#### THE ORIGINAL MERRY ANDREW.\*

THE great grandfather of all Murrays is surely the author of the *Introduction of Knowledge*, "the whych dothe teache a man to speake all manner of languages, and to know the usage and fashion of all manner of countreys. And for to know the moste part of all manner of coynes of money the whych is currant in every region. Made by Andrew Boorde, of Physycke Doctor." Here in thirty-nine chapters are the Doctor's notes on "Barbari and the black Mores and their speche ;" on "Jeene (Genoa) and the Jenenes ;" "of the kingdom of Poll, and of the disposicion of the people ;" "of Gulik and Lewke" (Juliers and Liege), and base and high Almayne, and so forth. The said notes were from personal observation, for Boorde "had trauayled thorow and round about all the regions of Christynte ;" and were put together at Montpellier in 1542.

Who was Boorde ? Mr. Furnivall has published his book of travels, his *Detary of Health*, and Barnes's answer to his lost *Treatise upon Berdes*, along with his own learned "Forewords" and "Hindwords" in the last extra volume of the Early English Text Society. Boorde was born at Boorde's (now Board's) hill in Holmdale not far from the Hayward's Heath station, in Sussex. The family makes a figure in Lowes's *Worthies of Sussex* : by the time the

Armada came it had split into two branches, the heads of which, occupying Board's Hill and Paxhill, gave 30*l.* a-piece towards the defence of the country. In 1570 one of them, an Andrew, was a *nativus* or "villein regardant," of Lord Abergavenny's manor of Ditchling, near Cuckfield ; and him, "Georgius Nevile D<sup>m</sup>. de Bergavenny," manumits, so that he no longer has to "regard," i.e. to be on the watch, what service may be required of him. But this cannot be our Doctor ; for he had been got hold of by the Charterhouse monks while he was under age, according to their practice of "drawing boys into religion with hooks of apples, whom having professed, they do not instruct in doctrines, but maintain them to go upon beggarly excursions." So Boorde became a monk ; but he was "dispensyd with relygon," first by the Pope's bull that he might be suffragan to the Bishop of Chichester—a man of mark in the county he must have been—and afterwards three times over by his Carthusian superior, that he might go abroad and study medicine. After this he reckons himself (as well he might) clearly discharged from religion, and able to settle quietly at Montpellier, then the chief transalpine school of physic.

There was nothing of the martyr about *Andreas Parforatus*, as he calls himself. If he writes a book of Sermons in 1532, he takes the oaths to Henry VIII. in 1534. The Prior Houghton and several of his monks were put into the Tower, and afterwards hanged, for refusing to take these same oaths. But Boorde was already

\* *The Fyrst Boke of the Introduction of Knowledge, made by Andrew Boorde, of Physycke Doctor, &c.* Edited, with Life of Andrew Boorde, and large extracts from his "Breuyary," by F. J. Furnivall, M.A., Trin. Hall, Camb. Early English Text Society, 1870.

something of a courtier ; when he was "a young doctor" (of full forty years old) he, just home from his travels, was sent for by the Duke of Norfolk. He did not like to prescribe without consulting the Duke's old physician, Dr. Butte. But Butte did not come ; so Boorde prescribed, made a cure, and was "allowed to wait on" the King. He was, too, not at all the man to make a good Carthusian. He, the original "Merry Andrew," must have been horrified by their silence, their solitariness, their no meat, no fun, all stay at home life. It made him ill ; and his distaste for it doubtless strengthened his inclination for travel.

When he got free from the Charterhouse, Cromwell took him up, had him to stay with him at Bishop's Waltham, and got him appointed to an office which Tudor statecraft taught necessary—of observing, viz., and reporting on the state of feeling abroad about Henry VIII.'s doings. He travelled far, starting suddenly from Orleans to Catalonia, in order to show nine Scotch and English pilgrims the way to St. James's shrine at Compostella. He warned the poor fellows that it was a very hard journey, saying he would rather go six times from England to Rome than once from Orleans to Catalonia. However they went ; and, Spain being then as now a country where the traveller's constant difficulty is how to avoid being starved, they all suffered a good deal : and in coming back "thorow Spayn, for all the crafste of Physycke that I coulde do, they dyed, all by eatynge of frutes and drynyngke of water, the whych I did ever refrayne myselfe." How he rejoiced when he got into Aquitaine, the land of plenty, where "a peny worth of whyte bread may serue an honest man a hoole weke." He "dyd kis the ground for ioy," he says, "burdious and byon (Bordeaux and Bayonne) being so much better than the baryn countrey of Byskay . . . for Aquitany hath no falow for good wyne and bred. Whan I was ther I had ix kakys for a peny ; and a kake serued me a daye, and so it wyll any man, excepte he be a rauenner."

But, much as he disliked Spain, we find him again in Catalonia at the time when Charles V. is embarking for his expedition against the pirate Barbarossa. Having found that "the vnyuersites off orlyance, pyctauensis (Poitiers), Tolosa, mountyplyer, and the reuerend father off the hed charterhouse, a famuse clark, and partt

(president) off the vnyuersyte off parys doth hold with our soveryne lord the kyng in his actes," he was glad to be able to add to this the more important news that "the emprow (Emperor), with all other kynges in the courtes of whom I haue byn, be our redoubtyd kynges frendes and louers." Curiously mixed up with this account how "the emprowe tok sheppying in to barbary," is a notice that "I have sentt to your mestershewp the seedes off reuberbe, the which come owt of barbary. in thes partes ytt ys had for a grett treasure." Then follow directions for sowing, which Cromwell could not have attended to, for it was not till 1742 that Collinson first raised "true Rhubarb from seed sent me out of Tartary by Professor Segisbeck of Petersburgh." This letter, important enough to be endorsed "Andrewe bord, prest. how king h. 8 is well esteemed in ffraunce and other natyons," is followed by one to the prior of the London Charterhouse, explaining how he has been dispensed from religion at the Grand Chartreuse ; his fear lest he might be claimed as a runaway monk urging to take this precaution. He then comes home and goes to practice and study medicine in Scotland, probably that he may pick up information ; for we can scarcely suppose that Edinburgh had as yet attained any eminence as a school of medicine. He got on as well as was to be expected : "It is naturally geuen (he says), or els it is of a deuellyshe dysposition of a Scottysh man not to loue nor fauour an englishe man. And I, beyng there, and dwellyng among them, was hated ; but my sciences and other polices did kepe in favour that I did know theyr secrete." Boorde repays their hatred with dislike—a dislike which he extends beyond Scotland : "Wold to Iesu (he writes to Cromwell) that you hade neuer an alyon in your realme, specyally skottes, for I neuer knew alyon goode to ynglonde except thei knew profyt and lucre shold com to them." It is likely, however, that he is, in writing thus, rather falling in with Cromwell's views than giving his own ; for the man who liked Aquitaine so much, and who enjoyed life so thoroughly, in such dissimilar places as Holland and Montpellier, can hardly have been so narrow and insular as he there makes himself out. But the Scotch he certainly was not fond of : "Shortly to conclude (he says), trust yow no Skott, for they wyll yowse flatteryng

wordes and all ys a falsholde." That the English in those days were not very popular abroad we may gather from the Doctor's experience that "in all the partes off crystendom that I haue trauyllyd in, I know nott v Englыш men inhabytours, except only skolers for lernyng." Nevertheless an exception is always made in favor of the place where bread and wine are so cheap and abundant. After finding fault with nearly all Europe "from Calais to Calais back again," Boorde says, "I can not geute to crete a prayse to Aquitany and Langwadock, to Tolose and Mount-pilior . . . in Tolose regneth treue justice and equite off al the places that euer I dyd com in."

In Scotland he condescended to hide his name and nationality : "I resortt (he tells Cromwell) to the skotish kynges howse, and to many lordes and lardes, and truly I know ther myndes, for thei takyth me for a skotish manes sone, for I name my selff Karre, and so the Karres kallyth me cosyng, thorow the which I am in the more fauer."

After some stay in Yorkshire he is in London (1537) worrying Cromwell about two horses stolen, he knows very well by whom, as he was travelling southward. Then he goes abroad again. It is such a pity that his "Itinerary" is lost, except the English part of it (printed by Hearne); but Mr. Halliwell is sure, from internal evidence, that he really visited all the countries mentioned in his *First Book of the Introduction of Knowledge*. He visited his old friends at Montpellier on this fourth journey, and there got drunk, as his opponent Barnes, in his *Defence of Beards* against Boorde's attack upon them, takes care to tell us : "Your fren Martyn the surgyen brought you to dyner upon a daye to one Hans Smormowthes howse, a Duche man, in which howse you were cupshotte, or therwyse called dronkyn, at whiche tyme your berde was longe." And Barnes goes on, with the minute personality of the time, to explain why "ye abore berdes." Men in those days lived in glass houses, and yet were not at all afraid of throwing stones, ay, and dirt too of the most offensive kind.

Boorde was a staunch Romanist, though he had struggled against the "rugorosyte" of the Carthusian rules ; he is therefore the object of attack of men like foul-mouthed Bishop Bale, one of those

creatures whom an evil fate mixed up with the beginnings of the Irish Protestant Church, and who calumniates Boorde at Winchester, where he settled on property left him in that city by his brother, in a way that makes old Anthony a Wood protest. Ponet, Bishop of Winchester, in his *Answer to Gardiner Pighius and other Papists* (1555), makes the same charge. Of the truth or falsehood of the charge Mr. Halliwell expects some proof when the Winchester records come to be published. Anyhow, it seems certain that Boorde at Winchester came to grief. Whether the women spoken of were really what Ponet and Bale call them, or were, as Wood says, "only patients that occasionally recurred to his hous," it is certain that our Doctor, who had displayed his sanctity by drinking only water (a great piece of self-denial for him) three days a week, and wearing a hair shirt, and every night hanging his shroud at his bed's foot, died in the Fleet Prison in 1548-9. It is very probable that his being there was a case of religious persecution ; for he was very bitter against monks and priests who had broken their vows by marriage, so that a strong party must have been eager to punish him. Here is Bale's account of his end (*Scriptorum Illustrum Catalogus*) : "quum sanctus hic pater, Vuintoniae in sua domo, pro suis concubibus Papae sacrificalis prostibulum nutriri, in eo charitatis officio deprehensus, uenato pharmaco sibi ipsi mortem accele- rauit, ne in publicum spectandus ueniret."

So much for Boorde's life. Of his books all are worth reading, his *Breyuary of Helth*, no less than his "Itinerary." He is the first father of all "domestic medicine" books, just as we said he is of all Murray's Handbooks : "I do nat wryte," he says, "for lerned men, but for symple and unlearned men."

His *Itinerary of Europe* is lost : he says, "the whiche boke at Byshops-Wal-tam, one Thomas Cromwell had it of me. And bycause he had many matters of state to dyspache for al England my boke was lose." So is his book of Sermons, much regretted by Mr. Halliwell, who says we should have had in it a perfect picture of his times. Romanist though he was, he testified that, "in Rome I dyd neuer se no vertue nor goodness but in Byshop Adrian's days," who was soon

poisoned for his attempts at reformation.

Besides what are known to be his, a good many have been fathered upon him, chiefly jest-books, in which he is entitled "Merry Andrew,"—as he was always recommending people to "laugh and grow fat." Among things attributed to him is a Latin poem on the Friars, beginning—

Nos vagabunduli,  
Lecti jucunduli,  
Tara tantara teino.  
Edimus libere,  
Canimus lepide  
Tara tantara teino.

And so on.

Of the "Introduction of Knowledge," Dibdin says, "it is the most curious and generally interesting volume ever put forth from the press of the Coplands."

Of course he begins with the Englishman, who is in the rude woodcut represented naked, holding a huge pair of shears, and having over his right arm a piece of cloth. This is a hit at the national love of new fashions :

I am an Englishman, and naked I stand here,  
Musyng in mynde what rayment I shall were;  
For now I wyll were thys, and now I wyll were  
that,

A now I wyll were I cannot tel what.

English freedom is insisted on :

No man shall let me, but I wyl have my mynde.

And English swearing impressed Boorde as something *sui generis*; he often remarks on it: "In all the worlde ther is no regyon nor countree that doth vse more swearynge than is used in England, for a chylde that scarce can speake, a boy, a gyrtle, a wenche, now a dayes wyl swere as great othes as an olde knave and an olde drabbe." Which shows that we do owe something to the Puritans; for our "girls and wenches," at any rate, have given up the custom, and contrast strikingly in their careful shunning of strong expressions with the German lasses, for instance, whose "Ach du lieber Gott!" drawn out so sweetly from a rosebud mouth, is much more startling than the "Mon Dieu!" of a Frenchwoman. The Italian verdict on England, Boorde tells us, was "bona terra, mala gente." This he combats: the English are as good as any people; "yea, much more better in many thynges, specially in maners and manhood." The superior fertility of Eng-

land (so well brought out in Laing's *Notes of a Traveller*) struck the Doctor; he also thinks London the finest city in the world, "wherein is such a brydge of pulchritudnes that in all the worlde there is none lyke." Stonehenge he notices; and Bath, where "in wynter the poore people doth go into the water to kepe themselfe warme, and to get them a heate." England too has "more nobiler portes and hauens than any other regyon." But the strangest thing is that he puts Cornwall by itself in an "appendex," in order to give samples of that old Cornish which Mr. Max Müller has found more than a match for him in the third volume of his *Chips*, and also to declaim against the bad cooking which is said to be still a fault of the Cornish folks. "Cornish cream" the Doctor evidently never tasted, though its well-known "Phoenician origin" precludes the idea of its having been since invented; however, clotted cream he mentions several times in his "Dietary," but he must have eaten a Cornish pasty (such as they give you—generally cold into the bargain—at that worst of all refreshment rooms at the Plymouth station); for he says, "there meate and theyr breade is marde and spylt for lacke of good ordring and dressynge." But his chief complaint is that nothing fit to drink can be got in the county: "there ale is starke nought, lokinge whyte and thycke, as pygges had wrasted in it." Of men who drink stuff like that we do not wonder to hear that

For wagginge of a straw,  
They wyl go to law—

a characteristic of their descendants, unless report maligns them. Nor do the Welshmen proper fare better at our author's hands.

I am a Welshman, and do dwel in Wales,  
I haue loued to serche boudgets and looke in  
males;

I loue not to labour nor to delue nor to dyg,  
My fyngers be lymed lyke a lyme twig;

sounds very like an expression of "Taffy was a thief." Welsh singing and harping both seemed to the Doctor

Much lyke the hussyg of a homble be;  
while the Welsh love of "cawse bobys" (toasted cheese) is of course noted. Our author was writing some score of years after "the hundred merry tales" were printed, in one of which St. Peter, ordered

to clear heaven of the ruck of Welsh saints, goes outside and shouts "cawse boby," and when their Welsh holinesses have all rushed out to get some, slips in and locks the door upon them. Wales is, he says, like Castile or Biscay in the poverty of living and lodging; yet the people are "hardy, stronge, and goodly . . . and many of them be louynge and kynd hearted, faythal and vertuous." Their wakes, after the Irish fashion, amused him; and their cry, "O swetynge, why dost thou dye? thou shalt not goe from us; we wyl die with the ; venit! (benedictus)" reminded him again of Castile.

Of Irish characteristics the Doctor hits off not a few. Under a cut representing a girl "hunting over" the hair of a rough fellow whose head is in her lap, we read—

. . . I loue to weare a saffron shert, although  
it be to torme,  
My anger and my hastynes doth hurte me full  
sore;  
I cannot leue it, it creaseth more and more.

Frieze, hobby-hawks (such as Strafford in later days sent over to his friends), "aquavite," dice, are Irish exports. There are no magpies (now they are almost as plentiful as in France) nor snakes, etc.; and English merchants carry away Irish earth "to caste in their gardens, to kepe out and to kyll venomous wormes." The Irish are slothful, not caring for riches but for meat and drink; "flesh sufficient they haue, but little bread or wine, and none ale." It is "their melancholy complexion" (Mr. Disraeli says it is the nearness of the melancholy sea) which causes them to be testy without a cause. Nevertheless Boorde adds: "I did neuer find more amyte and loue than I haue found of Iryshe men the whyche was borne within the English pale; yea, even among the wylde Irishe there be vertuous creatures whom grace worketh aboue nature." So Stanhurst (1577): "These Irishe beyng vertuously bred up or reformed are such myrros of holynes and austoritie, that other nations retaine but a shadow of deuotion in comparison of them."

Scotland is on the whole fairly treated, considering.

I am a Scotyshe man, and trew I am to France;  
In every countrey myself I do advance;  
I wyl boost myself, I will crake and face,  
I loue to be exalted here and in every place.

India was not yet a field for enterprising

young Britons; but as soon as our factories out there began to be worth going to, "the Scotch party" grew, and grew till men from this side of the border were almost looked on as interlopers. And not in India, but (much to their credit) in almost every part of the known world, Scotch merchants and Scotch in every capacity have gone ahead, just as Boorde describes them doing in his time, as James's English courtiers and subjects cried out against them for doing some seventy years later. Is this "pushing" a proof of their being pure-blood Teutons? It certainly is not Celtic: the French have it not, nor the Welsh and Irish; but the Prussians, so their London and Liverpool fellow-clerks say, possess it in a most unpleasant degree. This would settle the question about Lowlanders; but how is it that the Highlanders have, on the whole, done as well—in some walks of life better—than their Lowland rivals? Anyhow, though the Scots are in this as Boorde found them, let us rejoice that no longer are his next verses true in any sense:

I am a Scotyshe man, and haue dissembled moche  
And in my promise I haue not kept touche.

An Englyshe man I cannot naturally loue.

Boorde notices the great poverty and wretchedness of the Borderland; he remarks on the good cookery of the Scotch, and of their skill in music, and doubts not that the Northern Scotch are of the same race with the Irish.

Why he treats of Shetland and Friesland together, except that both, he says, abound in fish, I cannot tell. The Frisians he praises as being good, simple folk. About Iceland he is sadly at fault: the men, who certainly were for centuries above the European average in intelligence, he stigmatizes as "beastly creatures, vnmanered and vntaughte, lyuing in caues altogether, like swyne. . . . they will gyue awaie ther children. . . . They wyll eat candells ends and olde grece.

. . . They be lyke the people of the newe founde land named Calyco. *In Iceland there be many wylde bestes.*" But in Iceland there are no wild beasts at all.

Boorde's conscientiousness comes out in his declining to give any samples of Icelandic; for, says he, "I can not speke it, but here and there a worde or two." Poor old man! he could fairly assert:

After my conscience I do wryte truly.  
Nor does he claim a high rank for his  
poetry :

But I am as I am, but not as I was.  
And where as my metre is ryme dogrell,  
The effect of the whyche no wyse man wyll defell.

"Drunk as a rat" is the proverb of the "buttermouth Flemings;" but the Dutch are worse, drinking till it runs out of them. Brabant is rich and pleasant, and "Handwarp" has a curious spire and a "Bourse" for the merchants. Cleves and Gueldres are poor, because so fond of war. In Juiliers the geese are plucked naked every year. So much for the "base Doche men." In "hyghe Doch lond" we are astonished to find the "Junker" already known by name, wearing a feather in his cap :

Be it of goose or capon, it is right good gere.

One High Dutch custom which disgusted Boerde has made its way over here, possibly along with the Georges : "they will eate magotts as fast as we wyll eat comfits. They haue a way to brede them in chese." The snowy Alps impressed our author much : "a man may see them syftene myle of, at a cyte called Ulmes."

Denmark, next on the Doctor's list, is a very poor country, so poor that Boerde marvels "how they dyd ones gette Englande." So again he marvels how a little country like Saxony could have conquered England ; "for I think if al the world were set against England it might never be conquerid, they beyng treue within themselfe." Next Boerde speaks of those other heretics the Bohemians, whose spokesman says :

For the Pope's curse I do lytle care.  
Ever sens Wyclif dyd dwel wylth me  
I dyd never set by the Pope's auctorite.

Bohemia is the land of wonderful beasts—"bughs and bovies," much like those which Caesar describes as inhabiting the great Hyrcanian forest. What Boerde says of them may be all true ; but he is certainly wrong when he says of the Bohemians, "their speche is Doch." Not even the Thirty Years' War and the Germanizing of their nobles ever for a moment drove the Czech speech from its position as the language of the country. And now when the German traveller crosses the old frontier, he feels much as an Englishman

does in a third class carriage on a South Wales railway—among aliens.

Mr. Freeman is quite right ; we are Tentons ; the "at home" like feeling which most of us have all the way from the Rhine to the Oder proves it to my mind. Even if we don't understand the speech, we feel as if we ought to. Nay, far west of the Rhine, about Ostend, where the Fleming asserts himself so stoutly against his "Welsh" neighbors, how home-like is the look of the people, and how you "stand corrected" if at some little inn you have asked for "viande" and the hostess with a grave shake of the head drawls out "Nit fleisch." You never feel at home in Bohemia ; the lodging is still as "indifferent" as it was in Boorde's day ; but it is something about the people which shows they are not of us.

In Poland our author was chiefly struck with its poverty ; he makes here too a mistake about language—"theyr speche is corrupt Doche." Boerde would have had an effort made to drive the Turks out of Hungary. His Hungarian says :

If we of other nacions might haue any helpe,  
We wold make them to fle like a dog or a whelpe.

He grows quite poetical about the "regall flod of Danuby ;" but he does not appear to have passed beyond it ; for about Constantinople he romances, talking of Saint Sophia as not a mosque, but the "fairist cathedral churche in the worlde. . . they say that there is a thowsande prestes that doth belong to the church : before the funt is a pycture of copper and gylt of Iustiniyan, that syteth upon a horse of coper." All which smacks rather of Mandeville than of personal observation. The kindness of the man comes out in his way of noticing the Great Schism : "The Greiciens do erre in many articles concerning our fayth, the whyche I do thinke better to obmyt, and to leue vnwryten than to wryte it." Bravo, Boerde ! How well you contrast with some of our moderns. I took up *A Vacation Tour in Brittany* not long ago, and was vexed to find all that was new in it made up of tirades against "Popish darkness and superstition."

We are wrong. Boerde must have been in Greece, for he gives an unusually long Greek and English dialogue, ending with the pious *Cherete apapantes* with which the modern host dismisses his guests.

Harking back from Greece towards Calais, Boorde takes Southern Europe, beginning with Sicily and Italy; the thing which chiefly struck him in every part of which was the prevalence of old fashions in dress and behavior :

Al new fashions to England I do bequeat,  
says the Neapolitan;

In my apparel I am not mutable,  
says the Roman, and so on.

Boorde's righteous soul was vexed, like other righteous souls, at the state of Rome ; "I dyd se lytle vertue there, and much abhominable vyses." He is also worried by their way of reckoning time, "for they do recken vnto xxiii a cloke, and than it is mydnyght."

What he says of Venice reads like Childe Harold's lines put into old prose : "Whosoeuer that hath not seene the noble citie of Venis, he hath not sene the bewtye and ryches of thyss worlde." The Doge may not leave the city so long as he doth live ; there is not a poor person to be seen in Venice ; the Venyscions hath great prouision of warre, for they haue euer in a redynes tymber to make a hondred gates or more," They are not superstitious : "When they do heare masse they doth clap theyr hand on theyr mouth, and do not knock themself on the brest." In fact the Venetians were a satisfactory people. The laxness which Byron found among them, and which made their city in his eyes an Italian Seville, belonged in Boorde's day to Genoa. Thomas, in his *History of Italy* (1561), says : "One thing I am sure of, that if Ouid were now aliae, there be in Genoa that could teache him a dousen pointes *de arte amandi*." Boorde as a doctor of course noticed Genoa treacle, *Opaxiv*, whose virtues are witnessed to in Chaucer's line :

Christ that of alle mischef is triakel.

Of it he says : "Whan they do make theyr tracle, a man wyll take and eate poysen, and than he wyl swel redy to brost and to dye, and as sone as he hath takyn trakle he is hole agene."

After the old-custom-loving Italians it is a change to come into France, where they "wyll every daye haue a new fashion." France suits our author's love of good cheer, and though he has a special word for "good Aquitany," as he affectionately calls it, he is able to say of the whole

that "Fraunce is a noble countre, and plentiful of wyne, bread, corne, fysh, flesh and whyld foule. there a man shal be honesty orderyd for his mony, and shal haue good chere and good lodging." Very different this from Aragon, where nothing is to be had but measly bacon and sardines —so bad that, when Englishmen have been there,

Thither neuer after they wyll come agene.

The rest of Spain is as bad, except by the sea-side, where, like Portugal, it is enriched by trade. Elsewhere "the country is baryn of wine and corne, and skarse of vitels ; a man shal not get mete in many places for no mony ; other whyle you shal get kyd, and mesell bakyn, and salt sardyns, which is a lytle fysh as byg as a pylcherd, and they be rosty. al your wyne shal be kepte and caryed in gole skyns. . . . when you go to dyner and to supper you must fetch your bread in one place, and your wyne in a nother place, and hogges in many places shal be vnder your feete at the table, and lice in your bed. . . . the best fare is in prestes houses, for they do kepe typling houses."

When he comes to Navarre Boorde tells at full length the story of the white cock and hen which were kept at St. Domingo in memory of the sad fate of the Joseph-like young pilgrim who was on his way to Compostella. At which Compostella, by the way, an old blear-eyed doctor of divinity tells Boorde that "our clergy doth illude, mocke and skorne the people to do Idolatry, making ygnorant people to worship the thynge that is not here;" all the bones, etc., of St. James and others having been placed by Carolus Magnus in St. Severin's in Toulouse. I am sorry to say that Brittany—"little Britten"—has not a good character in Boorde :

Of al nacions I hate free Englyshe men,

is what the Breton says ; but then, as Boorde's Breton speaks French, let us hope he is misrepresented as regards his dislikes as well as his language.

So having got back to Calais again, Boorde goes on to treat of Moors, and of Turks, whose "Macomyt, a false felon," deceived the people by teaching tricks to his dove and his camel ; much as many Irish believe Henry VIII. taught a donkey

to "discover" the Book of Common Prayer, which the apostate King had secretly buried. With which notice of "Macomyt" let us leave the travel-book and turn to "Dyetary," written in Montpellier, and dedicated to Thomas Duke of Norfolk. And here the striking feature is Boorde's compendiousness: he treats of everything, from where you are to "cytuat" your house, and how you should build it, "for to lengthen your lyfe," down to "how a sycke man shuld be vsed that is lykly to dye."

On house-building he is not only before his age, but far in advance of our own practice; he has a true notion of sanitary laws: "The ayre cannot be to clere and pure . . . for we lyue by it as the fysshe lyueth by the water . . . for yf the ayre be fryske, pure, and clere, it doth conserue the lyfe of man, it doth comfort the brayne." Bad air putrifies the brain; and among things which corrupt the air are "standing waters, stynkyng mystes and marshes, caryn lyinge longe aboue the grounde, moche people in a smal rome lying vncleynly and beyng fylthe and slattyse." Above all, buttery, cellar, larder, and kitchen are to be kept clean and free from accumulations of filth; if there is a moat, it must be often scoured and kept free from mud, so must the fishponds. Stables, brewhouse, and bakehouse are to be kept well away from the dwelling-house. Such a house must have plenty of land about it, "for he the whyche wyll dwell at pleasure, and for profyte and helth of his body, he must dwell at elbowe-roome." The prospect too must be good; "for, and the eye be not satysfyed, the mynde can not be contented. And the mynde not contented, the herte cannot be pleased; yf the herte and mynde be not pleased, nature doth abhorre. And yf nature do abhorre, mortyfacion of the vytall and anymall and sprytyuall powers do consequently folowe." Of aspects the south is the worst, "for the south winde doth corrupt and make euyl vapours;" the best is the east, "for that wynde is temperate, fryske, and fraugrant"—testimony, as Mr. Halliwell writes, to the same effect as that of Mr. Kingsley in his well-known Ode. Never set up house till you have three years' "rent" (i. e. money for all outgoings) in cofier. Divide your income into three parts: one for food; another for dress, wages, liveries, alms; the third

for urgent calls, such as sickness and the "charges of a man's last ende."

Keep your household well in hand, and put down swearing; "for in all the worlde ther is not suche odylle swearyng as is vsed in Englonde, specyalmente amone youth and children, and no man doth go aboue to punnysshe it."

Sleep according to your temperament, but not too long; have a fire in your room to consume evil vapors, "for the breath of man may putryfye the ayre within the chambre." Wear a scarlet nightcap and plenty of bedclothes. And, if you must sleep in the day-time, sleep leaning against a cupboard or sitting upright in a chair.

Eat and drink moderately, "for else the lyuer, which is the fyre vnder the potte, is suppressed that he can not naturally nor truely decocte ne dygest." Fond as Boorde was of good beer, he did not like even to see men let "the malt-worme playe the deuyll in theyr heade." He also cries out against our English plan of eating the "gross meats" first, leaving those which are wholesome and light of digestion for servants. "Water," he confesses, "is not holsome, sole by it selfe, for an Englyssh man;" above all, avoid well-water and standing water. Claret or "Raynysshe" is best with meat. Of "hote wynes" he gives a long list; but would have none of them taken but very sparingly and after dinner. The distinction between ale and beer will be new to some readers: ale is only malt and water, "and they which do put any other thyng to ale except yest, barme, or godes good doth sofysticat theyr ale." It is the Englishman's natural drink, as beer (of malt, water, and hops) is the Dutchman's; "bere nowe of late dayes is moche vsed in Englande to the detriment of many Englyssh men, whom it kylleth." Boorde insists strongly, as all men of sense do, on the importance of good bread; "so-physticating" bakers he would set standing up to their chin in the Thames. He is also great on porridge, which he says "is not so much vsed in al crystendom as it is vsed in Englande." Fish, too, sea and river both, we have more of than any other country.

Our Doctor's verdict is (contrary to that of modern physiologists) that "fysshe doth lytele nourishe," and also that fish and flesh should not be eaten together at one

meal. He then gives a curious classification of birds according to their digestibility, giving the chief place to the partridge, "whiche is a restoratyue meate, and dothe conforte the brayne and the stomache." A woodcock, on the contrary, is "a meate of good temperaunce." But of wild fowl in general he makes a remark which is of much wider application: "All these be noyfull, except they be well orderyd and dressyd;" as he says elsewhere, "the cook is more than half a physician."

Mixed with his dietetics are all sorts of queer jottings from his experiences abroad. Thus he had seen in "Hygh Alman" what any one who travels there or in Hungary may see nowadays, "swyne kept clene." The Germans, he says, make them swim once or twice a day in their great rivers. The English let theirs lie about in filth and feed on "stercorus matter;" and the Spaniards he found worse in this respect than the English.

I am happy to find that brawn and all such strange meats Boorde pronounces bad. Of two of them he says: "Yf a man eat nether of them bothe, it shall never do hym harme."

Hares he would have hunted: "it makyth a gentylman good pastyme;" but he would leave it to the dogs to eat. "Conys flesshe (on the contrary) is good, but rabettes flesshe is best of all wylde beestes, for all thynges the whiche dothe sucke is nutrytyue." Here Boorde helps us to distinguish synonyms—a rabbit in his day was a sucking cony. Beer, again, as we saw, he marks off from the ale with which it is so often confounded.

Further on he treats of vegetables, and proves that either the story of Queen Elizabeth sending to Holland for a salad is apocryphal, or else gardening must have died out in the troubles of the reign of Edward VI.; for here we have radish, lettuce, sorrel, endive, besides rocket, alexanders, and other plants which our modern English cuisine superciliously neglects.

Boorde next arranges a diet for the sanguine, melancholy, phlegmatic, and choleric man, and also for patients suffering from moral diseases; recommending fresh air, cleanliness, care against infection, and a reference to "my Breuyary," just as if he was a nineteenth century physician. Better advice than this could

not be given:—"No one can be a better physician for you than your own self can be, if you will consider what does you good and refrain from what harms you. . . . Let every one beware of sorrow, care, thought, and inward anger. Sleep well and go to bed with a mery heart . . . . Wherefore let every man be mery; and yf he can not, let hym resorte to mery company to breke of his perplexatyues." Further, wash your hands often, and comb your head, and keep chest and stomach warm and head cool; and if you are seriously ill, make your will, and have two or three good nurses, "not slepysshe, sloudgysshe, sluttysshe," and have sweet flowers kept in your room, and no babbling women about.

Of human nature Boorde was at least as good a judge as he was of the diagnosis of diseases; his estimate of the female character, for instance, is that of the Arthurian Romance: "Women desire sovereignty." The man, he says, who would be at peace must "please his wyfe, *and beate her nat*, but let her haue her owne wyl, for that she wyll haue, who so euer say nay." As a prison reformer he was centuries before his day. But after speaking, as Howard might, about the filth and bad air in prisons, he quietly adds: "The chefe remedy is for man to so lyue and so to do that he deserue not to be brought into no prison." Before his time, too, are his views on demoniacal possession: incubus and succubus, he says, are of "a vaporous humour or fumositie rysinge out and frome the stomake to the brayne."

Parents grumbled then as they do now at the idleness of the rising generation; "the feuer horden," Boorde calls it, and recommends *unguentum inculinum* as the remedy. Care, too, must be taken that they "put no Lubberworte into their potage."

In fact, there is a world of quaintness and good sense in Boorde; and Mr. Fur-nival has only tantalized us by giving us extracts from books which make us anxious for more. How such a man could be taken as the type of what we mean by Merry Andrew it is hard to say: he is always recommending mirth, and he owns to his love of good cheer; but it is not at all merry-andrewish to sum up advice in this honest, earnest way: "Fyrste lyue out of syn, and folowe Christes doctrine, and then vse honest myrth and honest

company, and vse to eate good meate  
and to drynk moderately."

Enough about Boorde: this is one of

the most interesting books to people in general that the Early English Text Society has yet given us.

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Cornhill Magazine.

#### TWENTY-SIX HOURS.

I HAVE often thought that life is long or short, according as we choose to make it—that is, according as it is full or empty, which greatly depends upon ourselves. Given a certain number of months, weeks, hours, the question is, how much can be put into them? Not merely of work—we cannot always be working; nor even of moral improvement or intellectual development—we cannot always be improving and developing; but of that wholesome idleness which is to the tired brain like rest to the body. Only it should be rest, not torpor; leisure, not inanity. Eye and heart should lie open to chance interests or impressions, as inherently and pleasurable as a fallow field to sunshine; and if so, into that blessed, healthful sleep, "what dreams may come?" innocent, happy dreams, which make life, as I said, full, not empty, however idle it may be. Careless thoughts, harmless fancies, passing observations of men and things—worth no more, perhaps, than the white clouds that float over our heads, or the fragments of birds' song that reach our ears, as we lie on our back in that glorious summer laziness—but still they have filled up the hour; it has been neither useless nor dull.

And I cite the Twenty-six Hours, which give a title to this paper, as an instance of how much may be put into the most ordinary "pleasuring," when the pleasure-seekers are disposed to find it; wherever it chances to lie, without going particularly in search of it. Twenty-six hours, evolving none of those deep tragedies, or exciting interests, which sometimes compress a year into a day, but just an ordinary day, and two hours over—let us be nothing if not accurate—in which I have set down, accurately and literally, without gloss or ornament, all that happened. A mere slice of common existence, remarkable for nothing, and from which nothing resulted: yet it is such days which make up the sum of all our lives.

We had been living in a sort of Happy Valley—not in Abyssinia, but Scotland—a

shooting-lodge in a far-away glen, deep-set among mountains. Unlike Rasselias, however, we did not want to get out of our Happy Valley. We kept putting off from day to day an excursion, long planned, which we had at first meant should occupy some days, but at last cut down to hours. Indeed, but for a certain feeling of "honor bound," and a certain fear of looking foolish in having come thus far and never seen the great "show" of the neighborhood, I doubt if we should have gone at all: it seemed really nonsense, we were so content here. But, after putting off the expedition to the last available day, and discovering the shortest possible time that we could do it in, we decided that we would really go and see Glencoe.

Of course everybody knows about the Massacre of Glencoe, at least we supposed so then. If not, everybody can read about it in Macaulay. So I have no intention now, nor had we any then, of going over the place with historical acumen, or entering upon the rights and wrongs of the question—politically or poetically. The slayers and the slain alike sleep now: God give them good rest!

It was about 4 P.M. when we started, on the loveliest of September afternoons. All forenoon we had been wandering over the hill-side, or floating lazily on the loch, casting tempting flies before the very noses of unappreciative trout, and sighing hopelessly over the big salmon that lay at the bottom, some of them with our very hooks in their mouths. At this moment, after the long calm, a most tantalizing breeze sprang up, curling the loch into slight ripples, and exciting in us a wild hope, a piteous fear, that there might be some salmon-fishing to-night, and we away! Once we actually thought of turning back, and putting off Glencoe to a more convenient season, but shame forbade. Having made up our minds, we scorned to unmakethem, and off we drove.

As we wound through the long glen, we wondered if anything we were going to see would be more beautiful than what we left

behind—most beautiful indeed everything was. The soft gray haze, which day after day had covered the hills—those lovely, mid, still days, so fatal to salmon fishing—gradually warmed into color, and the western outlet of the glen, which, at our end of it, we could not see, became slowly visible, letting in a glimpse of ocean, into which the sun was setting, a round ball of fire. Our little fresh-water loch was left behind, and the loch alongside of which we drove had a salt smell and a tidal beach; it was, in fact, one of those countless arms of the sea which in this region of highlands and islands stretch inland often for many miles. But it was narrow, and it lay as still as our own baby loch. Now and then a water-hen flew across it, or a heron stood on the shore, shining large in the lessening light, and startling us with the sudden flap-flap of its big wings as it departed to some more solitary haunt, if such could be. Here and there a boat, pulled up high and dry on the beach, indicated that sometimes human beings came there, but otherwise the road was altogether lonely—as lonely as that most lonely churchyard I ever saw, which, just about here, our driver pointed out to us. It was half-way up the mountain-side; so high that how the silent burdens were ever carried up there, or there was found earth deep enough to bury them, passes comprehension now; yet a churchyard it certainly was, fenced in by a circle of holly-trees. Tradition says it was placed there from a vague fancy that from it might be visible the sacred island of Iona.

We half wished we were going to Staffa and Iona instead of to Glencoe, but the still weather which had lasted so long might at any time burst into equinoctial gales, making such an expedition anything but a pleasure-party. So we held firm to our first intention, to meet the *Chevalier* steamer at Port Appin, and go on board her to Balachulish, returning by the *Pioneer* next day. Of course in these far regions, where communication is rare and difficult, every boat, her sailing qualities, her outside looks, her dates of coming and going, are as important as if she were a human being. The arrival of the *Chevalier* was doubtless the event of the day at Appin. Appin, our only link with civilization, our key to the outside world. Thence, as we knew well, came all our food that did not come out of the loch or from the hill-side.

There was actually an inn, and a shop, and a pier; nay, even a castle, which now appeared, standing out sharp against the sunset, perched on a little island at the mouth of the loch, very picturesque and charmingly “tumble-down.” Little now remains of it but a portion of a low tower, but it is said long to have been the residence of the chieftains of Appin; and, surrounded as it is by sea, was no doubt a very safe, if a rather damp and uncomfortable one; but probably its inhabitants did not care. Even now, is the word “comfort” in the Gaelic tongue at all?

Never mind, what business have we to criticize our fellow-creatures? I daresay they are perfectly happy in their miserable huts, which gradually thicken as we approach Appin—mere thatched hovels with a hole at side or roof, through which the peat-smoke can escape. Some have actually a window—two or three glazed panes, of course never opened and never meant to open. None have a yard of garden-ground, or any attempt at a fence, to keep in the pigs, chickens, calves, or children, that roam about at will. There is a family likeness between them all, especially between those shaggy calves, with such sensible human faces, and the little human beings, bare-headed, bare-footed, with the smallest amount of clothes that can possibly hold together, who stand and stare as the carriage passes, and then begin jabbering in their unknown, but sweet sounding Gaelic, and laughing as only children can laugh. Not a bit afraid are they of the beasts among which they are brought up, not even of the big paternal bull—one of Rosa Bonheur’s bulls to the life—who is generally seen feeding among his affectionate family, or else standing meditative, filling up the whole roadway with his huge bulk, when he justs lifts up his yellow mane and shakes it wildly at you; then, finding you do not budge, but that he must, he marches soberly off. He is quite harmless, and peaceful-minded, as you gradually find out, but one of the most alarming animals to look at, or to meet in a solitary walk! However, as we had met him, or his brother, or his cousin, each bigger than the last, every day we went out, we had grown used to him. It does not do to be too particular in the Highlands.

More huts or cottages, lengthening into a street, a one-sided street, the other side

of which was the shore of the loch, now widening out into sea—that is, the narrow, island-dotted sea of these parts, which is so curious and so beautiful. A traveller who had lately sailed through the Greek Archipelago, told us it was nothing to compare with the Scottish coast between Oban and Fort William. And as we neared Port Appin, we strained our eyes to catch a glimpse of the grand outline of Mull, which, when we arrived here a fortnight before, had stood gray and giant-like against the sun-set sky. But neither it nor the endless array of hilly islands which stud this wonderful northern sea, was visible. A few cloud-like, uncertain shapes glimmered through the haze, like Ossian's ghosts—we were in the very home of Ossian—and that was all.

So we looked at the human features of the scene, and of course they all looked at us, coming to their cottage-doors as we passed, and interchanging lively Gaelic greetings with our driver. They seemed idle rather—Highlanders have an unlimited capacity for idling—but, to be sure, their day was nearly over; the sun was just setting, and the boats and nets were pulled up on shore. About the hotel door and the one shop—the grand emporium of commerce of the neighborhood—there hung a little knot of folk, men, women, and children, chattering away in that high-pitched Gaelic which sounds such a very foreign tongue to us ignorant Sassenachs. Odder still, because whenever we asked a question it was generally answered in the best of English, not the Doric Scotch at all, but "high" English, as it is taught in all the parish-schools. It tells well for the brains of these wild Highlanders—boys and girls alike, running about like young savages, with their bare legs brown and lithe as monkeys, and their bright eyes gleaming under tangled masses of black or dark-red hair—that, rough as they look, almost every one of them can speak, and not a few read and write, two languages.

At 6 P.M. the *Chevalier* was due at Appin pier; but when we arrived there a few minutes before the hour, no boat was in sight. However, as we had long found out that time was a thing of no consequence whatever in the Highlands, we settled ourselves cheerfully to wait a little, and watch the thin crescent of the moon, slowly brightening over the expanse

of gray sea and gray sky. All gray—not a touch of color anywhere, even in the west; not a ripple on the glassy water; not a sound, except a Gaelic word or two exchanged between the pier-master and a boy who was fishing off the pier-head. By-and-by there came up two more expectant passengers and a few more boys, who, in default of other amusement, began jumping about to a monotonous reel, or strathspey, played by one of their number on a Jew's-harp, which is a very favorite musical instrument in these parts. Gradually the twilight darkened and the moon brightened—nay, began to throw her light upon the waters, and make for herself there that basin of gleaming fulgence—that magic bridge across the waves—which, however many years one may have watched it, always gives one back a little of the dreams of one's youth—

We long to tread that golden path of rays,  
And think 'twould lead to some bright isle of rest.

Very dream-like the whole scene became, for there was still no sign of the *Chevalier*. "You'll hear her long before you see her," said the pier-man, consolingly, and retired to his house at the pier-end; so did the scampering boys; so did the two other hopeless passengers. Soon there was nothing to be heard but the faint lap-lap of the water against the pier—nothing to be seen but the bright image of the moon: a double image, equally bright in the sky and the sea: and that passing phosphorescent light so constantly seen after dusk in these northern waters, which is one of the eeriest and loveliest sights I know.

We had now waited nearly two hours, and there seemed a fair likelihood of our waiting a third, for we learnt that, a few days before, there having been a fog on the Clyde which detained the *Iona*, the *Chevalier*, which meets her, had not reached Appin till after 9 P.M., nor Balachulish till 10. The same thing might happen now. For a moment we considered whether we would not give up all hope, and retire for the night to the Appin Hotel, where, according to advertisements in the *Oban Times*, there was "the best of accommodation" and "plenty of seal-fishing;" but, not being seal-fishers, we were disinclined to risk it. Besides, matters might have been much worse with us. It was a perfectly calm night, mild and warm as midsummer; the stars were creep-

ing out overhead, the Great Bear wonderfully bright, and then the moon ! I sat down, nestled snugly under the "haps" with which we had luckily provided ourselves, to watch that pretty crescent gradually dip into the sea, half smiling over a tune that would keep coming and going, and "beat time to nothing in my brain," —how

'Twas on a Monday morning,  
The pipes played loud and clear ;  
And a' the folk cam' runnin' out  
To view the Chevalier,

as certainly we folk at Appin would have done upon the smallest chance. But there was none. Vainly we strained our eyes to see her lights, and our ears to catch the sound of her paddles ; all was total silence, and that soft gloom which never is entire darkness, at least by the sea. At length sight and hearing faded out in a delicious oblivion. I am afraid I fell fast asleep ! and while I slept, the moon set. I woke up to a sky vacant of everything but stars, and a sea which was a blank of impenetrable haze. The poor *Chevalier* ! Where was she ? would she ever arrive ? should we sleep at Balachulish that night ? or anywhere, except under those bright but inhospitable stars ?

The pier-master, evidently pitying us, came up for a little more conversation. It taxed his powers somewhat. He spoke English like a foreigner, slowly, in carefully arranged sentences, and with words slightly misplaced or oddly used, and I think he understood us very imperfectly ; still we talked—about the boat and the pier, and his life there, which must be in winter such an exceedingly solitary one, when this splendid Hutcheson line of tourist steamers leave, and only luggage-boats pass at rare intervals and according to weather, stopping at any hour of day or night. Often, he said, some luckless traveller had had to wait from morning to evening, or even all through the night, to catch the chance of being carried out of this far-away nook of the world into civilization.

He went away,—this civil, friendly old fellow, who had the inherent politeness of the Celtic race. Highlanders, Irish, and French, all possess it ; and oh, what a blessing it is, especially in travelling. Once more there falls down upon us solitude and silence ; until, hark ! I fancy I

hear beating through the intense stillness of the sea something like a pulse. Can it be ? Listen again. Yes, something is coming, and it must be the *Chevalier*. No other boat can it possibly be ; which is one comfort. For five minutes, at least, we hearken to that faint throb of sound through the darkness, and then a glow-worm light is seen to steal along the pier. It is the pier-master bringing his lantern. He hangs it up prominently, with its white light on one side and its red on the other. There can be no doubt now—the boat is coming. It is nearly nine o'clock. For three full hours have we been waiting for her : but what matter ? she is come at last. Hungry, weary, sleepy, cold, we cross her gangway, and stagger down into her warm, dry, bright saloon, blessing D. Hutcheson and Co. with all our grateful hearts.

Oh, the meal which followed ! Everything so clean, and wholesome, and pretty. There was capital sea-trout, and ham and eggs, for those whose appetites led them so far ; for us and others, excellent tea, bread, butter, and marmalade, in unlimited supply. Out of the shilling they charged for it, I fear the providers of the feast must have made but a very small profit, that night at least. Equally welcome it seemed to the two other occupants of the table—a gentleman and his wife, who was one of the most beautiful persons I had seen for many a long day.

She was such a pleasure to look at, that it was not till tea was quite ended that I went upon deck to watch a sight always rather mysterious to land-lubbers—the steering of a vessel by night straight on through the darkness of an unknown sea. In these narrow channels, full of rocks and islands, navigation must in winter be difficult, probably dangerous ; only there could be no fear of collisions : our boat was the only thing moving upon that solitary sea. And when once the captain sung out, "A light ahead !" there was quite an excitement among the few passengers. "It's only Corran," persisted the man at the wheel, for once breaking his prescribed silence. "No," said the captain, "it's the Staffa : I see her two lights. Port your helm ; that'll do, Jack !" And so the double stars went glimmering past, a long way off, and we were again alone with the night, the sea, and the almost invisible mountains. There was a fascination about

it, and even though it was nearly ten o'clock, the sail ended only too soon.

Many people know Balachulish, where in a quiet inlet of the sea a splendid hotel has been built, to which very grand people go. We, who had been living completely out of the world, felt half afraid of its splendid civilization—

O sleep, thou art a blessed thing,  
Beloved from pole to pole;

and more especially when one is in that state of trial, and almost permanent weariness and worry, called by courtesy "a tour of pleasure." But things look different at night and in the morning; and when at 8 A.M. I was out on the shore, smelling the salt weed and investigating the mountains so picturesquely heaped together, the tribulations of last night had completely vanished. Our sole wrong was that, as usual, we had to wait for breakfast. Is it possible for the Celtic mind ever to take in the virtue of punctuality? I fear not.

Our carrying out our plans last night was fortunate, for we found we had come in for the finale of the season. After to-day no tourist coach would run to Glencoe, though of course, even in winter, there is a small amount of traffic through that notable glen. English travellers, especially, seem to think a visit there indispensable; and in the quickly filled open omnibus now at the door, English tongues abounded, and *N's* were few. The people were of the customary tourist tribe—a little peculiar in dress, and sometimes in manner; lively and chatty, making comments with the not too courteous freedom of John Bull out for a holiday; and starting with the true John Bull feeling that everything in another country must be inferior to what we leave behind in our own. As perhaps it is—it ought to be—even as every man ought to think his own wife vastly superior to his neighbor's. But it is not quite civil to say so.

The first interest of our heterogeneous party, as it wound slowly along the shores of the loch, Loch Levin—a very narrow channel, which diverges from Loch Linnhe and Loch Eil—was the sight of a herd of cattle being conveyed from the other side in the most original and primitive fashion—by swimming. They were collected on a sloping pier of stones, and then pushed off, one by one, into the water, to follow their destiny—of course, not voluntarily;

but as all four-footed animals can swim, the poor things soon submitted to fate, and struck out for land—all but one helpless calf, whose head had to be held above the water by a man in one of the two boats which kept guard on either flank of the battalion. It was curious to watch the little fleet of horned heads slowly progressing across the loch, preceded by a huge bull, who courageously led the van, always a yard or two in advance, and was the first to climb up on the weed-covered rocks, and stand shaking dry his long dripping hide, with an air of mingled satisfaction and indignation. One by one his family followed him, and we left the whole herd, safely collected on the shore, looking a little damp and forlorn, but very picturesque, which ought to be a consolation for everything.

We looked anxiously for the "village" of Balachulish, having on our hands a trifling commission which we had promised to bring back from the regions of civilization, viz., gunpowder, a pack of cards, and some nut-crackers—three vital necessities in our glen, where the only daily duties were shooting, fishing, and nut-gathering, and the only evening entertainment conversation, which sometimes flags. It had never flagged yet: indeed we usually sat up fighting furiously till midnight—chiefly upon abstract questions; but still that resource might fail; and we faithfully promised to bring, at any rate, the cards. Alas! we might as well have gathered them on the bushes of Glencoe! The slate-quarries, which everybody told us was a place where there were "plenty of shops," proved to have only a baker's, butcher's, and one more; but the luxuries of life, as typified by cards and nut-crackers, were quite beyond our reach, as I should think of everybody hereabouts.

It was very tantalizing to have to pass the slate-mines unexamined, for they were exceedingly curious. Those long slides, reminding one of the Slide of Alpnach, down which the slate-wagons come tearing to the loch-side; those lofty slate arches, built in such architectural proportion, underneath which the roads winds; those slate fences, slate cottages, everything of slate; the air even was filled with a faint slate odor.

As we left the slate-village behind, and got again into the solitude of the mountains, our chattering companions

became rather trying. These worthy English people showed about as much knowledge of Scotland—its geography, history, manners, and customs—as if it had been the interior of Africa. "That is a shealing," said one. "What is a shealing?" asked a second lady. "Oh, a sort of cottage or hut where the inhabitants live. The word is derived from *shielding*, because it shields them from the weather." Of Glencoe, or any story connected with it, few or none seemed to have the remotest information, or interest in getting information. One gentleman—and I here beg to make an exception in his favor, for we afterwards found both him and his wife to be most intelligent and pleasant people—sitting beside the driver, turned to point out the house "where the head of the clan was murdered." "Oh, indeed," blandly replied a young lady, pausing in an obvious—rather too obvious—flirtation. "Was it lately?" "Not *very* lately," said the gentleman's wife, with a quiet politeness that I am afraid I can admire far easier than I could have imitated.

Nature wipes out all curses in lapse of years, with her merciful, tender hand. The spot which was the scene of the worst of the massacre, a little narrow valley, where the ruins of the houses still lie as they were left, is now full of the sweet smell of bog-myrtle, and green with bright beds of moss. And the mountains that saw it all, to-day stand smiling in their veil of mystic haze, which softens the grim outlines of the pass, and, taking away its grandeur, adds to peace and beauty. For it was a thoroughly summer day, in which one could scarcely imagine winter, or death, or destruction; no more than, a year or two after this terrible year 1870, travelling tourists, watching French or German farmers tilling their fields, will remember that some of them are battle-fields, sown with dead men's bones, and watered with streams of blood.

Glencoe was, on the whole, not so fine as we had anticipated. But how can one expect to be overwhelmed with a sense of solitary grandeur when, at the most picturesque point, a knot of lively tourists gather round a little table, on which is spread bread, butter, milk, water, and something a good deal stronger than water, to which they do full justice? And what possible Ossianic enthusiasm can one get up when, on the mention of that hero's

name, a young lady—the same young lady, who has flirted straight on ever since—mildly observes, "Dear me! He wrote poetry, you say? Did he reside in these parts?"

She must have been a little surprised at his traditional residence—rather uncomfortable even for a poet—a cave nearly at the top of the Black Rock, and only reached by ascending the bed of a waterfall. Our driver, in pointing it out, mentioned, rather sarcastically, a romantic young Englishman, who, determining to perform, all alone, the feat of entering Ossian's cave, got up, but could not get down again, and had to call to his aid one of those Highland shepherds who are nearly as agile as their own sheep.

These shepherds, and a few sportsmen who come to shoot over the hills or fish in a lonely little loch at the head of the pass, said to contain very fine trout, are, when tourist time is done, the only visitants of Glencoe; and its sole inhabitant is the widow woman who keeps the small public house where our half-way refreshment was spread. There is not a single Macdonald left in the glen. We thought it looked sadder in that bright sunshine than if it had been buried in cloud and gloom. How soon does nature forget!—but not sooner than man.

Back again we drove, in the same fashion as we came. Not a passenger paused in chatter, except one lady, who fell comfortably asleep. Evidently the dead Macdonalds, their rights and their wrongs, were not of the slightest consequence to these good English people. Nor were the mountains, with their bare outlines crossing and recrossing in such strange shapes; nor the gurgling of nearly dried-up torrents, which one could fancy, a month hence, would come tumbling down, with a hungry roar, carrying everything before them. I should like to pass through Glencoe in December.

Well, we had "done" Glencoe most conscientiously and completely; but in a holiday people often enjoy most the hours when they "did" scarcely anything, went nowhere, and looked at nothing, but just dauntered about in that perfect idleness which is delicious in proportion to its extreme rarity in one's existence. Thus, the two hours spent on the shore in front of the hotel, awaiting a three-o'clock dinner, were the pleasantest of our whole twenty-six.

The air felt so pure, the sunshine so balmy, the hazy mountains smiled so sleepily upon the glassy sea. Still, we were not very sorry to be going home to our own glen. There was something dreadfully unhomelike in that large hotel, and the long table d'hôte, laid for about thirty people, to which not more than half a dozen sat down. We looked forward to a most dreary dinner—but were mistaken.

I have been complaining of certain obnoxious tourists, who spoil with their silly chatter the pleasure of all the rest; but equally objectionable is the sullen traveller, who wraps himself up in his stony British reserve, and holds aloof from his fellow-creatures in what *he* calls "shyness," and thinks it rather a virtuous quality, when, in truth, it is only supreme self-conceit. He is such an important personage in his own eyes that he is always afraid of committing himself by interchanging a civil word or friendly action with a stranger. They may never meet again—why, then, take the trouble to be kind or pleasant? Why not, I should like to know, if it helps that brief moment of association to pass more brightly—sometimes even profitably? Two human minds, rubbing together for an hour or two, quite accidentally, are sometimes the better for the friction, both then and long afterwards. One of the most earnest talks I ever had was with an unknown fellow-traveller, who at last said, taking out a photograph, "Look here, I have no idea of your name, nor you of mine; we shall, in all probability, never meet again in this world; therefore tell me what you think of this face, and I will tell you my story." It was a love story, very touching, to which I gave both sympathy and, being asked, advice also. How it ended I am as ignorant now as then, for though, when the relator and I parted, we shook hands like old friends, we scrupulously abstained from giving or gaining the smallest clue to each other's identity. It will be the most extraordinary coincidence if we ever do meet again; but I am sure we shall carry a mutual kindly remembrance to our lives' end.

So shall I of the little company at that table d'hôte, of whom I equally know nothing. It does not matter who they were, or what they talked about, though

their conversation chanced to be very interesting; it was the spirit of it and of them which I like to record; the cheerful cordiality of intelligent people, using their intelligence freely for the benefit of their fellow-creatures. It is your doubtful folk who are so anxious over their own dignity—your stupid folk, who are so afraid of doing a foolish thing.

We left them, and Balachulish, probably never to see either again in this world. Walking leisurely to the pier we stood and watched the boat, for once punctual, glide up through the narrow channel of Loch Eil, which leads to Fort William. Soon we were on board, and steaming back through that wonderful net-work of islands which we had passed last night in the darkness. Oh! how lovely everything looked now! That splendid sunset—one of those rose-red sunsets in which the sea repeats the sky, and is dyed incarnadine! Even the mountains caught its glow, and became transfigured one by one. As for the sea, we seemed to have been sailing through waves of liquid crimson—the color of those roses of heaven which never fade. When it did fade it was only to "suffer a sea-change" into exquisite amber, and then into as soft and celestial a gray. Not a dozen times in one's life does one see such a sight as we saw that evening, sailing down Loch Linnhe.

When we reached Appin it was already twilight. Days instead of hours might have passed since we left it, so glad were we to see it again, and retrace, feature by feature, our beautiful glen. And when the young moon—could she be only twenty-six hours older than the moon of yesterday?—appeared over the western ridge, standing like a dancer, with her foot on the mountain top; when presently the stars began to show themselves thickly overhead, and one or two earth-born stars—dip-candles in cottage windows—glimmered mysteriously here and there on the darkening hill-side, we said to ourselves, "Glencoe may be very fine, and perhaps it is well we have seen it; but, after all, there is no glen like our glen."

I thought so then, I think so still; but yet we have never regretted our innocent wander of Twenty-six Hours.

Chambers's Journal.

## PRIMITIVE FORESTS OF THE EQUATOR.

THE immense uniformity of the tropical forest, and its undulating surface of green, give it a certain resemblance to the ocean, and at first, its effect upon the mind is similar. All travellers speak of the sense of awe and depression that overwhelms them on plunging into a boundless sea of vegetation, most bewildering where it is most luxuriant. Everything is strangely formed—even the leaves and flowers are gigantic, as well as the trees that bear them. Gorgeous lianas, or bushropes, climb and curl among the towering walls of verdure, rendering it often impenetrable to all but snakes and birds. The solitude is extreme. During the heat of the day, the only sounds are those of inanimate nature—of streams, that abound in the drenching equatorial climate, and of the trade-wind rushing through the tops of the giant trees. At other times, these are joined by the voice of general creation, or, as Auguste St. Hilaire says: “*Cette voix du désert, qui n'est autre chose que l'accent de la crainte, de la douleur et du plaisir, exprimé de différentes manières, partant d'êtres divers.*” There is a universal richness, an overflowing, an exuberance, by which each tree seems to expand into a pure enjoyment of life, to all seeming, as intense as that of its animal brethren. Nothing strikes the traveller more than the enormous energy of vegetation. In the forest, all things are at war with each other, and not the animal world only. As every tree drinks full draughts of moisture from the cold leaf-stained brooks that flow among its roots, so it desires light and air for its development, and struggles upwards, striving to raise its own head into the sunshine, and force its vast limbs through the dense surrounding mass. Undoubtedly, a like contest exists in every climate; but here, where vegetation is so crowded and nourished by this superabundance of heat and moisture, it becomes remarkably apparent. European scenery is full of repose. Countless ages have passed and left no trace upon the most wildly tossed peaks of the Alps; they and their pine-covered slopes seem ever the same, quiet, and almost lifeless. *There* the fierce, feverish existence of the tropics is unknown.

Budding, flowering, fruiting, which, in colder climates, is the work of twelve months, is *here* accomplished in a few days, and the various stages are progressing in the same clump of trees. Every season may be observed in a single day; and throughout the year, the temperature only varies within a few degrees. After a hurricane, or the continual squalls of the rainy season, two or three fine days will suffice to revive the forest in all its joyous strength, regardless of uprooted trees and dead foliage, and it is then that the rapidity of its growth is most wonderful.

There are three great forests lying under the equator—those of Brazil, of Central Africa, and of the Asiatic Islands. Each is a thick, wide-spreading mass of vegetation, subject to constant rains, and containing a world of life within itself. But as they essentially differ in their characteristics, I shall discuss them separately.

The broad rounded outline of the Brazilian forest is not so unlike that of a European wood as might be imagined; but it is the immense size of the trees, the deep-green color of the leaves, and the strangeness of each individual form, that distinguish it. Palms of a hundred species are mingled with the swollen-stemmed ceiba; while the gigantic mora, the bertholletia, or Brazil-nut, and the cow-tree tower, with several palms, above their fellows, two hundred feet from the ground. In some places there is a thick growth of underwood and ferns; in others the ground is a bare swamp, rank and steaming, where no plant grows among the tall trunks but gloom-loving fungi. Few trees bear flowers; indeed, it seems to be a law of nature, the great mother, that trees constantly bearing leaves should seldom produce flowers; and there would be little color in the variously shaded mass of green but for the lianas, which form its distinguishing feature. To call them creepers is to describe them feebly, they are rather climbing trees, and sometimes of large size. Twining their lithe, ribbon-like arms round the nearest trunk, they obtain a firm support, and spread from tree to tree in labyrinthine festoons, displaying a wealth of brilliant flowers that

irradiates the dimness of the forest. Often the tree dies in the murderous hug of its beautiful parasite, and hangs suspended, in the act of falling, by the liana, now scarcely smaller than itself. Nothing is at rest; but every living thing is fighting its own hard battle for existence. Heat and moisture are two great agents who are ceaselessly at work nourishing them all; no slight labor, when it is remembered that the equatorial rains, constant though they be, have to feed the Great River and its tributaries, as well as the forest that clothes their shores. To this excess of sunlight and rain does nature owe its marvellous freshness, life perpetually springing forth, hiding and sweeping away decay.

At every hour of the day and night, some living creatures awaken to activity. Sunrise is announced by a general chorus, especially of loud-voiced animals, as monkeys and parrots, whose varied cries continue in bursts, until the forest rings with the uproar. This gradually ceases as the sun rises higher in the sky; till at noon a death-like stillness prevails. The snake and cayman lie basking in open places, drinking in the fierce heat that drives all other animals to seek shade. Only a solitary cry is heard until sunset, when the chorus is renewed; but this time by different voices—those of the hungry jaguar and panther, the tapir, peccari, and others, besides noisy frogs, and those creatures that always accompany night, the owl and bat—the latter being often, in the tropics, the formidable blood-sucking vampire. It is at this time that fruit and flowers send forth their most delicious fragrance, and swarms of goat-suckers appear chasing night-insects. That much maligned but innocent bird, the goat-sucker, sleeps on the ground or on a low branch, and makes no nest, laying its eggs on the bare soil.

The sounds of the night are nearly the same, but even fewer than those of the day; the crash of a fallen tree, the mournful wail of the sloth, that seems to implore pity as it crawls slowly along the under-side of a branch, the cayman's cry, hideous and terrible, for it means that the monster is seeking for prey. Sometimes, too, there is the roaring of the jaguar on the same quest, or perhaps lost in the wilderness, a thing which not unfrequently happens, and the perplexed animal lives

for weeks in the trees, the terror of monkeys and birds. That peculiar species of monkey called the howler makes a terrific noise, it is said most depressing to the spirits—this is generally just before sunrise. Some of the birds sing well, as the realejo, or organ-bird, the campanero, with its bell-like note, and one or two others. As a rule, Brazilian song-birds are dull-plumaged, like our own. The glories of the winged kingdom are its humming-birds and butterflies. Birds lay throughout the year, and find plentiful food in the insects that abound. Every species of ant exists here, and in myriads. The formigo or fire-ant actually depopulates whole districts, man and beast fleeing from its fearful sting; while, on the other hand, termites, or white ants, perform a useful office in the system of nature, eating away the decayed parts of vegetation.

Beyond the ordinary sights and sounds of the forest, there are those for which no hunter, either Indian or white, can account—a ring as of an axe striking a tree, or a sudden sharp cry unlike that of any animal, and followed by profound silence. Mr. Bates describes them as producing a strange effect upon the mind in these vast solitudes. The Indians ascribe all such unexplained noises to the spirit of the woods. In them, and the voices of nature around them, they believe a deity speaks. Very few in number, and shrinking from contact with the white man's civilization, these Indians lead a wild, solitary life. A wretched palm-thatched hut, containing a few earthen pots, and the universal hammock swung within, is their dwelling, which is generally surrounded by a small clearing, growing manioc and plantains. The women cultivate this ground, while the men hunt and fish. Boiled ant-eater and red monkey are their common food. One or two tribes are nomade, remaining but a short time in the same spot, and living entirely upon fruit and fish—a harmless, degraded people. Their history is as obscure as that of most savages—even tradition is silent among them. Whence they came, it would be hard to say, but certain it is that they do not seem fitted by nature for the climate, as the negro is. They suffer from the heat like the white, yet their race appears to have existed and grown old with the forest itself. Its pathless wilds are familiar to them. With the lore of

the hunter, and the sun for their guide, they can read a meaning in every broken twig, in the bend of a tree, in a freshly stirred pool, or a bird's cry. Their world is forest and river—the Amazon that pours its mighty flood across the continent, and so divides it like a sea, that the very monkeys on its northern bank differ from those on the southern. Insects, too, and even some birds, are unable to cross the immense expanse. The trade-wind blows for one thousand miles up the river to the confluence of the Rio Negro. Notwithstanding the variety of tribes—those of the interior each possessing a different language—a single one, Tupi, is spoken for two thousand five hundred miles along the shores. Thus the watery high-road "unites and yet divides mankind."

Still journeying under the equator, we pass eastward across the Atlantic, and come to the forests of the Old World. Massive and thickly grown like the others, these of Central Africa seem to bear upon their face the traces of a greater antiquity. Here is none of the youthful exuberance of the Brazilian forest; all is silence and gloom. Huge trunks rise out of the barren swampy ground, and their dense foliage screens it from every ray of sunshine. Animal life partakes of these gigantic proportions. Large carnivora, however, such as tigers, panthers, and hyenas are rare; and indeed, the same may be said of the large monkeys, who are exclusively fruit-eating. The elephant retires farther and farther into the interior. Both it and the hippopotamus are slaughtered in numbers—by the traders for ivory and the negroes for food—and the result, at least for the latter, must finally be extinction. It cannot, like the elephant, recede far from the coast; its home must ever be in rivers. The American tapir is the small and partially developed representative of the Old World elephant; the American alligator, or cayman, a near but inferior relation of the crocodile. The chimpanzee, gorilla, and other large monkeys have progressed far beyond the stage in which we at present see the long-tailed climbing species, who are exactly suited for an existence among the trees of the new continent. But these large animals are rarely met with.

Words can scarcely express the deep melancholy and solitude of an African forest. Explorers, whom the "fatal fas-

cination of Africa" has drawn again and again to her bosom, describe the beauty of its scenery, its glorious sunsets, and the merry, childish savage, and at the same time this mysterious sadness, that overpowers every European. The Indian of South America, and he alone, is listless and melancholy amidst the youth and brightness of his native forests. He *may* be fallen; his ancestors may have fought for the Incas in the golden days of Peru; they may have built the monuments that lie in ruins scattered over Tehuantepec; but what past has the negro? If Amazonian America ever did lie where the sea now washes the festering mangrove swamps of the Guinea coast, it is so long ago that he has forgotten all about it. The tribes are very few in number, and widely scattered. A traveller may journey for days, and find but few signs of life; scarcely hear the song of a bird, or see a single flower. Rainbow-tinted dragon-flies hover round the pools, and a stray deer now and then comes to drink; but one may listen in vain for that faint murmur or undercurrent of voice and motion which is generally to be distinguished beneath the deepest stillness of tropical noon.

Lastly come the immense forests of the East India Islands, Borneo, Sumatra, and Java, upon which the sun pours down an everlasting flood of light, and the "cloud-ring" of the equator its tribute of rain. Lying midway between Africa and America, this group of vegetation shares the characteristics of both, though parts of it are rather jungle than forest. Immense groves of magnolias vary the never-ending palms of different kinds, among which the sago and betel-nut palms are especially common. The screw-pine and the tallest bamboo grow side by side, and, sheltering under the thick foliage, is the sole representative of an almost extinct class, the tree-fern, sixteen or eighteen feet high—relic of past geological ages, when its kind waved everywhere above a primeval sea. Splendid creepers twine among the trees, and in some places the jungle is a mass of rhododendrons, pink, crimson, yellow, and purple. Orchids are found in great variety; but the peculiarity of these islands are the nepenthes, or pitcher plants, holding in their leafy cups an inexhaustible draught of water, always pure and cold in the hottest weather. Among fruit-bearing trees, the famous durian and mangosteen

abound on every hand. In the dry monsoon, trees lose their leaves, but nature quickly revives under the drenching rains that follow. Rain at the equator has generally an exhilarating effect upon both tree and animal. It arouses new life within the white man, and almost produces vivacity in the listless, silent Indian. The negro alone is miserable under it. Here, in the Asiatic Islands, the afternoon showers of the wet monsoon rejoice all hearts. The animal concert is louder and more joyous than before. It is easy to distinguish the cries of the peacock and argus pheasant, and of the Jelatuk bird, which resembles the stroke of an axe. Night brings with it the loud pipe of tree-frogs, added to the cooing of doves, as they collect in flocks round the fruit-trees. Gaudy macaws and red lories settle to sleep among the branches, and leave the dark hours to enormous bats, whose expanded wings measure four feet across. Gradually these sounds drop off. The silence is perhaps broken for a moment by one of those unaccountable noises heard in dense,

untrodden forest, then all is quiet again. Suddenly a shriek arises from some defenceless creature, frightened by the approach of a stealthy cobra or night-wandering tiger, and the general uproar is renewed with tenfold vigor. Alarm spreads even to the huge orang-utan, who springs terrified from tree to tree. When this happens, there is an end to quietness for that night.

In these regions, where life is so abundant and so full of vitality, all is at the same time changing. Nature cannot stand still. Everywhere she is working, but it is under the equator that her grandest forces are visibly seen, rolling on through a majestic and never-ending cycle. There she puts forth all her Titanic strength. Many believe that the cradle of the human kind was in this sunny belt of the earth's surface, others that "the perfect race of the future" will see its day arise there. It may be so; but what more can we say? How, being ignorant of the past, can we guess otherwise than blindly at the future?

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The Spectator.

THE GENESIS OF SPECIES.\*

THE Origin of Life, the Genesis of Species, the Descent of Man—such are the grand problems which nowadays engage the attention of philosophic biologists. No longer is the mere description and collection of plants and animals, the ransacking of sea and land and ancient rocks for the countless forms of past and present life, the chief object of our students of botany, zoology, and palaeontology. Nor are they satisfied with the study of the geographical distribution, the succession in time, or the individual development of vegetable and animal organisms. The newer modes of investigation do indeed demand the most profound knowledge on all these points and the most extensive collections of materials, but they ask much more. They ask, especially, for a wider view of the relation of living things, both to the organic and inorganic worlds; yet they employ, as one of the most efficient instruments of research, a minute scrutiny into the causes

of the most trifling peculiarities of form and color. Whatever be the ultimate outcome of this novel questioning of nature, and in whatever way we may have to interpret its revelations, one thing is certain, that we owe to it many discoveries of surpassing interest. Work of this kind has been greatly stimulated by the publication of the views of Mr. Darwin and Mr. Wallace, on the theory known as that of "Natural Selection." This really ancient theory, revived by Dr. Erasmus Darwin in the last century, and marvellously developed by his grandson within the last ten years or so, is discussed by Mr. Mivart in the volume before us. This book was, however, published before the appearance of Mr. Charles Darwin's last work, in which he gives his present views on natural selection as related to the descent (or, as it has been more appropriately named, the ascent) of man.

To refute or to urge the adoption of the theory of natural selection is not Mr. Mivart's object. He desires to discover its real value, and to help in assigning to it a proper place in the scheme of nature.

\* *On the Genesis of Species.* By St. George Mivart, F.R.S. London: Macmillan. New York: D. Appleton & Co.

Further than this, he desires to conciliate the advocates of opposing theories, and to "dig down to the common root which supports and unites diverging stems of truth." Moreover, he endeavors to show that the theory of the evolution of a series of organic forms is not antagonistic to the teachings of even the most orthodox theology. Before proceeding to give some notion, however imperfect, of the plan which Mr. Mivart has pursued in dealing with these subjects, it will be necessary to state, though very briefly, the main positions assumed by those biologists who advocate the Darwinian doctrine of natural selection.

Starting from the fact that every kind of animal and plant tends to increase in numbers in a geometrical progression, and transmits a general likeness with minute individual differences to its offspring, natural selection assumes that such of these minute differences as are in any way beneficial to the individual possessing them become in the long lapse of ages more and more pronounced. This accumulation of peculiarities or divergencies from the parental type is caused by the "survival of the fittest" in the struggle for existence which all individuals have to encounter, and results in the production of new kinds or species. So far natural selection takes into account utility, only supposing the preservation and development of such differences and variations as are simply beneficial to the individual. But selection may be exercised, we are told, in another direction, that of beauty; and so, for example, a bird having exceptionally brilliant plumage may more readily find a handsome mate, and so perpetuate a race of increasing beauty. A further supplement to the theory of natural selection is afforded by Mr. Darwin's doctrine of Pangenesis, by which he endeavors to account for the likeness of progeny to parent through generation after generation. Of this theory we shall speak further on.

Mr. Mivart allows the existence of such an agent as natural selection, and even points out how it may serve to explain some of the most difficult phenomena of organic forms, but he draws a boundary to its efficient action. He regards it as wholly inapplicable or quite insufficient to explain the production of a very large number of existing animal and vegetable

structures. His arguments and illustrations are drawn from all three kingdoms of nature, but he is obviously most at home when dealing with zoological matters. In two chapters the main difficulties of Darwinism are arranged and discussed, the remainder of the book being occupied by a summary of the preceding arguments, by a brief statement of the author's own views, and by inquiry into the relation between certain theories of organic evolution and the Christian theology. We will first cite a few of the difficulties which prevent Mr. Mivart's complete acceptance of the theory of natural selection.

The first difficulty consists in accounting for the preservation of what may be called the *incipient stages* of useful peculiarities. The neck of the giraffe, as it now exists, is doubtless useful to these animals in times of drought, enabling them to crop the foliage of trees when the ground vegetation is wholly burnt up. But of what use would have been an excessively minute elongation of the neck in the nascent giraffe species? What advantage would such a minute peculiarity, such an infinitesimal lengthening of the neck, as Darwinism supposes, bring to the animal possessing it? Could it have tended to the preservation and predominance of this slight deviation from the original type, while all the individuals of the ancient and short-necked form were destroyed during each successive time of drought? So, too, with respect to the eyes of soles and other flat fishes. It is well known that in these animals both eyes are situated, in the adult, on the same side of the head. If this transference of an eye was accomplished by imperceptible gradations, through long ages, what benefit could the individuals in which it first occurred have derived from this divergence from a symmetrical arrangement? Convenient when perfect, the imperfect transference of the eye could hardly have been an improvement. Amongst insects numerous cases have been observed of striking resemblances to other objects. Some butterflies resemble dead leaves, and undoubtedly owe their preservation from insectivorous birds partly to this cause. So also there are walking-leaf and stick insects, and others simulating all sorts of out-of-the-way and bizarre objects. Mr. Mivart asks how is it that a number of minute incipient variations in many directions can ever build up such a re-

semblance to a leaf or a bamboo as to deceive not only an insectivorous bird, but a shrewd naturalist? How could natural selection find the materials to work upon, to perpetuate, and to perfect, out of the very small and oscillating beginnings of such a resemblance? For the resemblance ought to be in one direction only, and for its perpetuation many individuals must be simultaneously modified in that particular direction. But perhaps a still greater difficulty is experienced when, leaving the incipient stages, we endeavor to account, by natural selection, for the last finishing touches of these extraordinary mimicries. It seems impossible to see how the "survival of the fittest" can explain the imitation, by insects, not only of leaves, but even of the powdery holes and mildews that attack these leaves, and of their other injuries. Many other illustrations of the difficulty which exists in accounting for the preservation and development of useful structures in their incipient stages are fully discussed by the author, but we cannot reproduce here the elaborate arguments necessary to convey his meaning. We may, however, refer to the cases of the expanding neck of the cobra and the rattle of the rattlesnake, both of which, by warning through eye or ear the intended victims, seem positively injurious to the animals possessing them. For the timid and cautious only of the animals on which these snakes prey would ultimately survive, and would inherit a tendency to distrust "expanding" and "rattling" snakes, so that the latter would experience increased difficulty in obtaining their supplies of food. A very important argument, drawn from the minute anatomy of the eye and ear, is included in chapter ii., the independent but simultaneous processes by which these organs are developed being proved inexplicable on the natural-selection theory, with its minute and gradual modifications, since the incipient stages of these processes are in themselves absolutely useless for sight or hearing.

The co-existence of very similar structures of diverse origin tells against the sole or chief influence of natural selection in the production of such structures. Many causes beside natural selection do indeed produce these concordant variations. Among such causes may be named climate, soil, and food, which often tend

to impress a peculiar character upon the forms, structure, and coloring of the plants and animals of particular regions. The faunas and floras of many islands may be adduced to show how important physical causes are in favoring particular modifications. The generally succulent and fleshy leaves of glaucous hues, which many inland plants acquire when grown near the sea, and which sea-shore plants so commonly possess, may be cited as a case in point.

There is an argument against the gradual origination of new species by the long accumulation of minute changes furnished by the sudden modification which animals have been known to exhibit, especially under altered outward conditions. A cat from Algoa Bay underwent a complete metamorphosis after having been left only eight weeks at Mombas (on the African coast), where the cats, instead of fur, have short stiff hairs. So, too, some grayhounds of the best breed, imported from England for hare-hunting in a mountainous district of Mexico, were found quite useless, not being able to support the fatigue of the chase in the attenuated atmosphere. Yet the direct progeny of these animals was so changed as not to be incommoded by the want of density in the air. But the most cogent argument urged by Mr. Mivart against gradual modifications is supplied by the sudden appearance and steady persistence of a new and well-marked variety or form of some animal or plant. Perhaps the five distinct developments of the "black-shouldered" or "japanned" peacock in flocks of ordinary peacocks is the most extraordinary instance of this kind. Not only did this form spontaneously appear in Sir J. Trevelyan's flock, previously entirely of the common kind, but it so increased as to exterminate the previously existing breed. What renders this case the more remarkable is that the japanned peacock is regarded by one of the best ornithologists of the day as a distinct species, not a mere variety.

The relation of the fixity of species to natural selection is the subject of chapter v. Had such a law of selection been in constant and general operation, the present distinctness of species, and marked difference between species and races, could not have been preserved. Nor could the limits of variation in races or varieties have been so soon reached as

they are found to be practically. Then, too, the general sterility of hybrids militates against the assumed unreality of species.

There are two modes in which species may be regarded in their relations to time. If species have developed through successive increments of minute variations, we ought to discover in the stone records of the earth's history very distinct evidence of transitional and intermediate forms. Not only so, but the number of such progressive steps having been innumerable, the intermediate forms should be discovered in preponderating numbers. Why do not such forms exist? Why do they not exist in countless specimens? But, in point of fact, many fossils known to be continued during or separated by long periods of geological time are found to be absolutely identical in every respect; while many of the varieties which do occur, occur in the same stratum, perhaps in contact, and present just such "reverted" variations as are found in existing individuals of the present day. Mr. Mivart says, "It is incredible that birds, bats, and pterodactyls should have left the remains they have, and yet not a single relic be preserved, in any one instance, of any of these different forms of wing in their incipient and relatively imperfect functional condition!" The other point in which the element of time has to be taken into account in speaking of the slow development of specific forms, involves the question how long a period is demanded for this purpose by the tedious processes of natural selection? Now, Sir W. Thompson has endeavored to ascertain, by three chains of reasoning, astronomical and physical, how long life can have existed upon the earth. And he concludes that all geological history showing continuity of life must be limited within a period of one hundred million years. Mr. Mivart, with many other biologists, considers this period far too short for the multifarious developments, by exceedingly minute fortuitous variations, of the species of past and present time. He points out the present stability of animal forms, as represented on ancient monuments, and as occurring in what are known as recent deposits. He then proceeds to show how vast a period, some two thousand million years, must in reason and by analogy be assigned to the differentiation of a certain species of animal of the genus to which it

belongs, of the family which includes its genus, and to the scores of earlier differentiations which must have preceded those just mentioned, and which lead us back at last to a worm or a jelly-fish!

The questions of the geographical distribution of plants and animals are discussed in chapter vii., while chapter viii. endeavors to show that natural selection is incapable of accounting for the phenomena of homology, that is, the common resemblance of parts in their relations to surrounding parts, or as to their mode of origin. Why, for example, should most wonderfully complicated but quite useless structures be produced, and perpetuated in all their perfection, merely in order to preserve the symmetry of the form and its typical relations? Indefinite variation with the survival of the fittest does not seem to be in any way concerned with the elaboration and preservation of special organizations of this kind, which should rather be traced to the conjoint effects of several causes. Amongst these, an *innate tendency*, however inexplicable, holds the first place, just as a crystal is built up into a definite and constant form owing to the innate tendency of its constituents, when suitable outward conditions are fulfilled.

Pangenesis is a supplementary theory to that of natural selection. It has been devised to account for heredity, of the likeness of progeny to parent. It is, in fact, a means of localizing the innate tendencies of living forms. In reality it involves the assumption it was intended to supplant. For it supposes the existence in every living organism of a vast number of circulating particles, termed gemmules, each capable of reproducing its kind, and derived from all parts of the less remote ancestors of each such organism during all the states of such ancestors' existence. Here, then, we have the hereditary characters of the organism transmissible bit by bit through the power or tendency of gemmules instead of through the power or tendency of those parts of the organism capable of reproducing it. Endeavoring to dispose of this existent innate and directive tendency inherent in organisms, whereby they produce their like, pangenesis imagines countless generations of gemmules, it endows them with an imaginary propagative power, and it suggests that they, though atomic, are susceptible of multiplication by fission.

We have not space to offer a summary of Mr. Mivart's positive teaching on the subject of Specific Genesis. So far as his views have taken a definite shape, he is inclined to attribute great power in the origination of new forms to an internal tendency, real, but as yet inexplicable. Still he allows external conditions, with inheritance, reversion, natural selection, etc., to play an important part in the work. Natural selection more particularly is concerned in the suppression of monstrosities, as Aristotle taught, and feeble and abortive forms, removes antecedent species when the new one which is evolved is a start, as it were,—is more in harmony with existing condi-

tions, and finally, favors useful variations.

We wish we could present our readers with the arguments of Mr. Mivart's twelfth and final chapter, in which he attempts the reconciliation of science and religion as regards the doctrine of evolution of species. But it would be unfair both to the author and the subject to attempt to contract his chain of reasoning into a few short sentences at the end of a notice like the present. We can only say that his great knowledge, and temperate, though forcible language, combine to render his views as to the bearings of science on theology and morality deserving of the most attentive perusal.

Saturday Review.

#### THE RELIGIOUS MOVEMENT IN GERMANY.

IT is not at all wonderful that a Berlin newspaper should affect to underrate what it calls the Döllinger movement in the Church, and still less can we wonder that its views should be eagerly endorsed by what the *Allgemeine Zeitung* very naturally characterizes as "the suspicious praise of the Ultramontane press" both in Germany and beyond it. The controversy between the "old Catholics," who adhere to the infallibility of the Church, and the "new Catholics," who substitute for it the infallibility of the Pope, can be a matter of no interest, according to the *Nationalzeitung*, to Protestant outsiders, since both parties alike maintain the principle of hierarchical absolutism, "*laicus taceat in Ecclesiâ*." Politicians, while equally indifferent to both theories, can afford to treat with impartial contempt any practical consequences that may be deduced from them. Whatever the infallible Pope may say, a servile Episcopate is pretty certain to obey; but neither Pope nor bishops can injure the State, though they may disturb individual consciences. The *Nationalzeitung* has no faith in the principles of the "Döllingerians," or the permanence of the movement, and "has never taken Döllinger and Schulte for paladins of intellectual freedom." In all this there is something of the contempt which men are always disposed to feel for religious movements beyond the pale of their own communion, and something of the dislike of a certain school of Liberals for any religious move-

ment which is not based on purely negative principles. English Roman Catholics are not apt to attach much more importance—except so far as it may hold out a prospect of conversions—to any controversy, however vital, which agitates the Established Church than the North German Protestant organ we have quoted attaches to the controversy which is shaking German Catholicism to its centre. And there is much force in the criticism of the leading journal in Southern Germany:—"We do not blame the writer for priding himself on having broken with all dogmas, but he must know right well that mere negation does the very worst service to the cause of human progress." It is added, fairly enough, that the "old Catholics" have not shown themselves more disposed to pay an abject submission to a servile and infallibilist Episcopate than to the Pope. And if many of the clergy have succumbed, the *Allgemeine* repeats, notwithstanding the angry reclamations of the infallibilist organs, that infallibility has become for them a "famine dogma." In many cases their bread depends on their submission. We have heard in more than one case of priests signing the declaration of the Munich clergy, who professed in private their utter disbelief in the dogma, one of them observing that he would just as soon believe in five Persons in the Godhead. The document after all was only signed by about half the priests at Munich, while the counter address of

sympathy to Döllinger has already received more than ten thousand, exclusively Catholic, signatures. The movement has of course great difficulties to contend with, owing to the enormously powerful machinery of repression, both spiritual and material, in the hands of the hierarchy, and ultimately of the Pope. This is sufficiently illustrated by the pusillanimous surrender of Bishop Hefele, to whose strangely inconsequent Pastoral we called attention the other day. It is now said to have been written under dictation, and sent to Rome for inspection before it was allowed to appear. What is certain is that it has destroyed the Bishop's influence in Germany, and procured him a most unctuous letter of commendation from the Papal Nuncio at Munich, who assures him that "the most Blessed Father, amid his grievous afflictions, will derive much consolation from reading" the Pastoral. Considering the opposition they have to cope with, it is certainly no reproach to the discretion of the reforming party that they should confine themselves at present to the one crucial point of Papal infallibility, and to one clear and decisive line of argument in their resistance to it—namely, its proved incompatibility with the history and tradition of the Church. No doubt there is much very open to criticism, as has been objected to them, in the constitution *De Fide* issued by the Vatican Synod in April of last year, but as the authority of the Council and all its decrees necessarily stands or falls with the great dogma which it was summoned to proclaim, there is no need to encumber the controversy with collateral issues. To complain that the opposition both to the doctrines and the competence of the Council is purely conservative and "reactionary," because it is based on an appeal to ecclesiastical tradition, is to forget that it appeals to that historical evidence on which all positive religious beliefs must ultimately hinge.

A Swiss newspaper, the *Bund*, has more correctly appreciated the movement, when it points to the contrast, now as in the fifteenth and sixteenth centuries, between German culture and science and "the slavish passivity of the Romance people under the yoke" of the Papal Curia. That the impulse first given by Döllinger's *Erklärung*, and the sentence which it drew upon him, is gaining strength daily

may be inferred from the fact that scarcely a number of the *Allgemeine Zeitung* appears without recording one or more addresses of sympathy to him from all parts of Catholic Germany, and many from other places also, one of the last announced being from a large body of priests at Naples. He has himself received a visit of sympathy from an Austrian bishop, and Friedrich, who is his fellow-victim, a letter from another bishop. The University students have signed an address, notwithstanding the Archbishop's threat of excommunication, which is sent round for signature to the other Universities of Germany; and his election as Rector for this year, the centenary of the foundation, is said to be certain. The honor of a torch procession, which they were eager to press upon him, was not unnaturally declined, but he purposed resuming his lectures after the summer vacation. Dr. Friedrich's request to be allowed to continue his public ministrations in the Royal Chapel has been referred to the Minister of Worship. It is sure to be granted, as far as the matter depends on the personal wishes of the King, but his action is somewhat hampered by Ultramontane members of the Cabinet. It is some testimony to the importance of the movement that the German bishops are understood to contemplate addressing the Pope to request such an interpretation of the political bearings of the dogma as may deprive it of all offensive meaning. We need hardly say that any such interpretation would be, like Cardinal Antonelli's oleaginous despatch to Count Daru last year, at once nugatory and insincere; the claims to absolute supremacy over both Church and State solemnly and repeatedly put forward by infallible Popes must stand or fall with their infallibility. But the desire of the German bishops to get rid of those awkward corollaries of the new dogma gauges at once the reality of their professed belief, and the reality of the danger they foresee in consistently maintaining it. Still more indicative of angry alarm is the elaborate document addressed to his clergy by the Archbishop of Bamberg, with its long and querulous preamble about the wicked agitation carried on both in town and country against "the decrees of the holy and Ecumenical Vatican Council," and against the Archbishop of Munich for enforcing them. The clergy are accordingly

directed to inform their congregations from the pulpit that all who reject the decrees of the Council, and all who "agree with or defend, or in any way favor Professor Döllinger in his heresy," incur *ipso facto* excommunication; that they cannot be absolved without retraction, and cannot, if they die, have Christian burial. From this censure they can only be absolved by the Pope, or a Bishop specially empowered by him for the purpose. How this declaration is likely to be received we may judge from the attitude of the two distinguished personages who have been singled out for specific condemnation at Munich. Dr. Döllinger, while abstaining for the present from officiating in public, in order to avoid causing any unnecessary scandal or disturbance, entirely declines to accept his excommunication as binding *in foro conscientiae*, and is drawing up a work against Papal infallibility with the view of establishing in detail the five points sketched out in his formal manifesto. Dr. Friedrich, in his published Letter to the Archbishop, sums up a masterly statement of the case by saying:—"On these grounds I here declare your Excellency's sentence against me to be not only unjust, but null and void and of no effect." Professor Huber, who, strange to say, has not yet been excommunicated, writes quite as strongly. Dr. Schulte, the Rector of the University of Prague, continues to be on excellent terms with the Cardinal Archbishop, but is in daily expectation of a sentence of excommunication direct from Rome, and it remains to be seen how Cardinal Schwarzenberg will act in such a contingency. Dr. Schulte is a layman, but the most distinguished canonist in Germany, and only second to Dr. Döllinger as an opponent of the new dogma. Bishop Strossmayer's severe illness, from which he is only now slowly recovering, has prevented his taking any active part in the controversy, but nobody supposes him likely to follow the ignoble example of the Bishop of Rottenburg. Meanwhile Dr. Michelis, who has been described with studied infelicity by the English Ultramontane press as "a German Murphy," but who is one of the most learned priests in Germany, is still engaged in lecturing to crowded and influential audiences on the nullity of the Vatican Council, and the falsehood of its dogmatic decrees.

In connection with this affair a curious

question has been raised in Bavaria, which, if it has not much practical importance, is of interest as indirectly illustrating the bearings of the new dogma on the status of the Roman Catholic Church. The Bavarian Constitution forbids, under severe penalties, any public insults or attacks directed against "the doctrines, usages, institutions, or worship" of any religious community recognized by the State, and the authorities and ministers of the four religious bodies in Bavaria are placed under the protection of this law. It has been asked, first, whether the Catholic Church, after accepting the new dogma of infallibility, can still claim the benefit of the law; and, secondly, whether it is to be regarded as sheltering the dogma itself from public attack? The answer which has been suggested seems sensible enough; but it marks very strongly the feeling entertained about the doctrine in Germany. The character of the Catholic Church, it is observed, is so essentially altered by the infallibilist dogma that it can only be regarded as a new religious community. "The dogma not only contains an article of faith, but changes the whole constitution and relations of authority in the Church, in spite of all the counter assertions of many infallibilists." A community under the absolute rule of one irresponsible and infallible man is not the same thing as a society whose chief can only lay down as a binding principle of belief what has been unanimously agreed upon by the rest of its representatives also. The Bavarian Concordat was made with a Church whose bishops, including of course those of Bavaria itself, shared with the chief pastor the right of defining doctrine, and it is therefore quite open to the State to decline to recognize its application to a Church where the bishops have no such right; but it is for the State, and not for individuals, to decide whether it shall be recognized or not. As to the dogma itself the question is a much simpler one. It was promulgated without the requisite civil permission, which had been expressly refused, and is therefore no dogma of the Church as recognized by the State, and cannot claim the protection of the law. In itself, as we said just now, the particular point at issue is of little direct importance. Educated men will avoid mockery and insult in attacking the religious opinions of their neighbors, how-

ever erroneous they may think them, and the civil position of the Church in any country must depend in the long run, not on the letter of the existing law, but on the state of public opinion. Still, considering that Bavaria is one of the most intensely Catholic countries in Europe, and

that the Church occupies a high position in the State and is represented at Court and in the Upper Chamber, it is significant that such an inquiry should have been raised, and have been answered in a sense which infallibilists may do wisely to ponder before it is too late.

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London Society.

REST.

THERE COMES a time in a man's life when he looks out for pauses and periods of rest. There is a time when a man is overflowing with energy. He both finds work and makes work. He cuts down trees in the forest of difficulty. He fights with windmills. He sketches out a programme which it would take several lifetimes to encompass. He puts no limit to his energies or his range of possibilities. By-and-by a man finds that his sphere is strictly limited and defined. He seeks to curtail rather than extend his engagements. He no longer thinks that he can know everybody and go everywhere, but recognizes that in fact he can, comparatively, only know few persons and go to a few places. He understands small economies of time and circumstances. He appreciates the *laissez faire*. He has a growing opinion in favor of holidays. Instead of being always busy, he appreciates pauses from business. He studies to be quiet. He begins to think that speech is silver and silence is golden. He appreciates Rest.

He appreciates rest if it is only for the sake of work, according to the laws of action and reaction. Hence, if you can economize seasons of rest you really secure opportunities of work. In London every man seems in a hurry, and every man has his programme too full. You note the Londoner's short, quick, and somewhat impatient walk. If he goes out to dinner he has been working up to the last minute; at a place of amusement he is too thoroughly tired to enjoy himself; even on a holiday he is busy with his schemes of work. A man can do no justice to dinner, holiday, or concert when his most pressing need is that he should lie upon a sofa or go to bed. Hence come nervousness, indigestion, bad nights, fatty degeneration, and all kinds of horrors. It is here that the smokers have a great pull

over the non-smoking part of the community. They understand how to take things quietly. They may like the aroma of the weed, but the indirect result of the rest is chiefly valuable to them. I remonstrated with a man the other day on his childishness in stopping to look at the shop-windows. He might have answered that to look at the shop-windows was itself a part of a liberal education. No Oriental Bazaar equals the bazaar of the London shops. But he told me that he was in the habit of walking a great deal too fast, and consequently he would every now and then bring himself to anchor in front of a shop-window, and counted the rest as gain. For my own part, I delight, when practicable, to "turn in" for an afternoon service at the Abbey or St. Paul's. There is something ineffably soothing and restful in the coolness, the shade, the stillness, the silvery echo of a noble voice, the soaring or sinking of the music amid the old arches.

The taste for rest grows with our growth in wisdom. A child cannot understand it. When a child is told that his father or mother wants to be quiet, the sentence is a wonderment to him. Mrs. Schimmel-penninck says that, when she was a child of six, her parents taught her to fold her hands and be quiet for half an hour. This valuable art might be taught at our schools, even if charged for as an extra. The taste for quiet and thoughtfulness ought to be developed as much as any other taste. Rest is an investment for action. All mere friction, friction and nothing more, is waste and loss. The wasted sparkle and glitter might have been consolidated into the diamond. There is a balance and equipoise in Nature, and any caloric that is uselessly given off is a deduction from the sum of vital heat. If you watch agricultural life you may see, on a large scale, how rest affects labor. In the winter the

laborer's day is very short. He gets up at a very late hour and goes to bed at an extraordinarily early hour. His object is to economize light and fuel. He often takes in winter nearly twice as much sleep as he takes in summer. In summer he will get up at four in the morning, and work at night while the latest gleam of sunshine lasts. It would be utterly impossible for a laborer to do his summer work unless he had stored up force during his winter rest. In the old days when warfare was chronic, winter-quarters were necessary to the summer campaign. In rest you recuperate from fatigue, and you also store up force for action. The prophet is sent into the wilderness before he begins his mission amid cities. In the lives of various great men you will find periods in which they seemed condemned to inactivity. But they were merely couchant for a spring. In fact, I have known energetic men who, in very quiet times, ask themselves for what special work they are reserved, and are firm in the belief that their rest simply means that there will assuredly be a strain upon their energies. And they find that thus it comes to pass.

There are all kinds of ways for economizing rest. And just in proportion as a man realizes the preciousness of effort and of work, as he would desire not to lead a feeble life of ineffectual aims, so far will he be jealous of useless effort, and desire to spare himself all friction and controversy. Life is too short for quarrelling and for a lot of other things as well. As far as possible let there be no waste in life, as there is none in Nature. There are many ways in which a man may achieve a masterly inactivity. You may be silent when others speak. You may be solitary when others are in company. You may refuse to see people in the morning. You may always have a cigar or a novel after dinner. You may resolve never to do any work after the curfew-bell. You will travel first-class as well for ease as for comfort. You will insist that your space of life shall have park and flowers as well as pavement and cabbagelarden. You will beware of a sudden abnormal effect, relying rather on steady careful work. Rest is a true element in good workmanship. I know a remarkably able and fertile reviewer who tells me that though over his midnight oil he can lucubrate articles with a certain sharp-

ness and force, yet for quietly looking at a subject all round and doing justice to all its belongings he wanted the quiet morning hours. Lancelot Andrewes says that he is no true scholar who goes out of his house before twelve o'clock. Similarly an editor once told me that though his town contributors sent him the brightest papers, he always detected a peculiar mellowness and finish about the men who wrote in the country. I knew an important Crown official whose hours were from ten to three. He had to sign his name to papers; and as a great deal depended upon his signature he was very cautious and chary how he gave it. After three o'clock struck, no beseeching powers of suitors or solicitors could induce him to do a stroke of work. He would not contaminate the quality of his work by doing too much of it. He would not impair his rest by continuing his work. And so he fulfilled the duties of his office for exactly fifty years before he retired on full pay from the service of the country. And when impatient people blame lawyers for being slow, and offices for closing punctually, and shops for shutting early, and, generally speaking, the wider adaptations of our day to periods of holidays and rest, they should recollect that these things are the lessons of experience and the philosophy of society and life.

It is so hard when you are in a generalizing humor quite to strike the balance; and, as a rule, a generalization presents only a half truth. I have spoken of rest when I ought perhaps to have been severe on laziness. A very acute writer was talking to me the other day about the writings of St. Augustine. He told me that that prolific author advocated, with great earnestness and ability, two sets of opinions; but that it had, apparently, never occurred to St. Augustine to examine how these different sets of opinions were related, and to perceive that they were inconsistent. However, I steer between antagonisms when I urge, that only he who works can rest, and that rest is nothing without work. So to speak, there is the centripetal influence by which we avoid work and the centrifugal influence by which we are driven to work; and between the two we probably describe exactly that curve of orbit which we were intended to fulfil. Of course rest is mainly for the sake of work. A wise man

will rather wear out than rust out, considering that he must work while it is day, and that there is all eternity wherein to rest. But still we have "a central peace subsisting at the heart of endless agitation," a restfulness of heart which sweetens work and alone makes it prosperous. A cyn-

ical statesman once said that life would be very tolerable if it were not for its amusements; but amusement implies rest, and without rest life would be intolerable —impossible. A wise man will lay it up as treasure and economize its stores.

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London Society.

#### THE HAPPY VALLEY.

In the heart of the long bare uplands  
It lies like a river of green ;  
And the trees each slope descending  
Leave a flowery sward between :—

A flowery path for the children,  
With the oak and the thorn on high ;  
Covets to tempt the boldest,  
And shelter-spots for the shy.

Come, Love, to the happy valley,  
Where the turf slopes smooth and dry ;  
At our feet the laughing children ;  
Above, the laughing sky.

Life has no hour more golden  
Than thus on the grassy slope :  
While we blend the age of reason  
With the dearer age of hope :—

For childhood is of the valley,  
Haven'd from tempest and heat ;  
With flowers beyond its grasping,  
And flowers beneath its feet ;

Mid-age has the long bare uplands,  
Bare to the heat and the rain :—  
Come, Love, to the happy valley,  
Children with children again.

F. T. PALGRAVE.

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REV. JAMES McCOSH, D.D., PRESIDENT OF PRINCETON COLLEGE.

BY THE EDITOR.

In the portrait of Mr. Darwin last month we brought our readers face to face with one who is generally conceded to be the foremost natural philosopher of his time; and in the portrait of Dr. McCosh, which embellishes the present number, we give them the same opportunity of becoming acquainted with one who is probably the strongest and ablest living battler in that great intellectual army which Theology has marshalled in her defence against the aggressive phases of modern science.

With a dialectic force fully equal to Hugh Miller's, and with a far more thorough and comprehensive culture and larger general resources, Dr. McCosh has done for Christianity in its metaphysical and philosophic aspects, what Hugh Miller did for it on its more strictly scientific side, and the various works which he has published since 1850 take rank among the most effective weapons which Christianity has used in its unfortunate conflict with the physical science of the day. His

earliest work, on the "Method of Divine Government, Physical and Moral," made a marked impression on its first appearance twenty years ago, and has exercised a most wholesome influence ever since; and we are not acquainted with any work of a similar character which we would more heartily commend to the attention of those who would understand exactly how strong is the theological conception of nature, and who would examine both sides of the great question before they decide that God as a personality has been "naturally selected" out of his own universe.

In it the author shows the faculty, which is conspicuous in all his books, of treating profound and complex questions in a simple, lucid, and straightforward manner—of bringing metaphysics down to the comprehension of the people without thereby compromising their character or destroying their utility. He meets even "popular science" on its own ground, and pretty much with its own weapons of inductive investigation.

Besides his pursuits as an author, moreover, Dr. McCosh has, for many years past, in Scotland and in Ireland, been engaged in practical education of the young, and it is in this latter capacity that he has come over to us. His scholastic attainments are of the highest order, and his training as an instructor long and thorough, and notwithstanding his conservative views on education in general, Princeton College, in calling him to the chair of her Faculty, has not only conferred a benefit upon herself, but through her on the country at large.

Below we give such a brief outline of President McCosh's career as we have been able to obtain from authentic sources.

James McCosh was born in 1811, in Ayrshire, Scotland. He was educated at a parochial school, and at the age of thirteen entered Glasgow University, which he attended for five seasons. When he commenced the study of Theology he went to Edinburgh University, where his talents began to show themselves, and he stood very high in the estimation of his illustrious preceptors, Dr. Chalmers and Dr. Welsh. Toward the close of 1835 he was elected by the people minister of the Abbey Church, Arbroath, and during the three years he was there he com-

menced in that district, along with Thomas Guthrie and others, the movement which culminated in the formation of the Free Church of Scotland. At the close of 1838 he was appointed by the Crown, on the recommendation of Dr. Welsh, minister of the first charge, Brechin, and there he and his colleague, Mr. (now Dr.) Foote, had under them a congregation with 1,400 communicants. In 1843 he surrendered the desirable living which he had there, and became a minister of the Free Church. For years at this time he led a very bustling life, having not only to preach to large congregations, and to visit sedulously among them, but to assist in planting new congregations in the north of Forfarshire and in Kincardineshire. This last work had been in some measure completed when he felt himself enjoying a period of comparative quiet, and here turned eagerly to his old and favorite studies in philosophy, and commenced to write the "Method of Divine Government, Physical and Moral." The work was published in 1850, and immediately came into notice in Scotland and America, being greatly indebted to a review of the book by Hugh Miller in the *Witness* newspaper, and a favorable opinion expressed by Sir William Hamilton. At the end of 1851 he was appointed Professor of Logic and Metaphysics in Queen's College, Belfast; he held that office for upwards of sixteen years, and created a taste for philosophy among his pupils, several of whom are Professors of Mental Science in Ulster. While occupying this most important office he exerted himself to support and extend the national system of education in Ireland, and to increase the liberality of the Presbyterian Church in maintaining its ministers. While he was Professor in Belfast he wrote "Typical Forms and Special Ends in Creation" (this conjointly with Dr. Dickie); "The Intuitions of the Mind, Inductively Investigated" (his most elaborate philosophic work); "The Supernatural in Relation to the Natural;" "The Examination of Mill's Philosophy;" also some articles in the *North British Review*, the *Dublin University Magazine*, the *British and Foreign Evangelical Review*, on the Scottish Philosophy. In 1868 he was elected President of New Jersey College, Princeton, and removed thither with his family in the autumn of that year. With the concur-

rence of the Trustees and Faculty he has been seeking to improve the courses of education and raise the standard of examination and learning. Friends of the College have subscribed upwards of \$50,000 dollars for new buildings and for establishing new chairs and fellowships. Since his arrival in America he has published his inaugural lecture on "Academic Teaching," and "The Laws of Discursive Thought, being a Text-book of Formal Logic," and "Christianity and Positivism, being Lectures on Natural Theology and the Evidences of Christianity." It is also

announced that the Doctor has in a forward state of preparation a work "On Natural Theology and Apologetics." Among the subjects which will be dealt with in this work are the Relation of Physical Science to Religion, Conservation of Force, Star Dust, Protoplasm, Origin of Species, Natural Selection, and Evidence of Plan in the Development of the Physical World—subjects of such vital significance in modern scientific thought that its appearance can hardly fail to excite a very high degree of interest, both here and in England.

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#### LITERARY NOTICES.

*Fragments of Science for Unscientific Readers.*  
By JOHN TYNDALL, LL.D., New York. D. Appleton & Co. 1871.

"My motive," says Professor Tyndall, "in writing these papers, was mainly that which prompted my Royal Institution lectures; a desire, namely, to extend sympathy for science beyond the limit of the scientific public;" and there is no doubt that the gathering of them together into the present volume (which is dedicated to the author's friends in the United States) will greatly extend the influence which they exerted in their detached and uncollected form.

The volume itself is made up of the essays, lectures, and reviews which epitomize the author's work during the last few years, and includes "The Scientific Use of the Imagination," "Dust and Disease," "Matter and Force," "Radiation," "Miracles and Prayer," "Science and the Spirits," and the various other articles which, as they appeared from time to time, have aroused so much interest, and stimulated so much discussion wherever Science has her votaries. Whoever would understand accurately a little of what science has accomplished, what are its tendencies, and at what rate it is progressing, can scarcely acquire the knowledge better or more agreeably than by giving days and nights to the study of these Fragments; and whoever would comprehend the precise attitude of its leading exponents toward the great questions of morals and theology, will find them the very best guide he could procure.

We say the *best*, because Professor Tyndall, more frequently than any of his collaborators in the work of popularizing science, deals with the ethical aspects of science;—to him, among the few great men who march with him at the head of the noble army of physical investigators, seems to have been assigned the task of lessening the friction which must inevitably ensue when scientific thought clashes with the beliefs and opinions which man has held dearer than life. And the selection is fortunate, both for Religion and for Science; for while he never conceals his convictions, and sometimes goes out of his way to insure their being clearly understood, he is always tolerant and conciliatory, and is seldom betrayed into that studied and aggressive contempt with which Professor

Huxley, for instance, sometimes retaliates upon his assailants. His intellect is not merely the "clear, cold logic-engine," and his emotional nature has far larger scope than Professor Huxley is willing to concede to the "truly educated man;" but for that very reason, probably, he is the most popular of all the expositors of scientific truths.

As to the "Fragments" themselves, judged by their avowed object of "extending sympathy for science beyond the limits of the scientific public," it would be impossible to speak too highly. No one can read them without admiring the consummate art with which they are written, their exquisite and limpid lucidity of style, and the simplicity with which problems and processes are explained to us which we yet know to be among the most complex and difficult in nature.

Before closing we would say that the publishers (Messrs. Appleton & Co.) deserve cordial thanks and encouragement from the American reading public for the series of scientific works—comprising some of the finest fruits of modern thought—which they have issued during the past year or two in such handsome style.

*Common Sense in the Household.* By MARION HARLAND. New York: Scribner & Co. 1871.

In a recent number of *Appleton's Journal*, a puzzling question is put by the Table-Talker as to what becomes of all the Cookery Books. An incalculable number of them has been issued since the appearance of the "Complete British Housewife," and there is scarcely a publisher who has not on his list one "which is generally declared by the press and the public to be superior to any other in the market," and which renders the complexities of the kitchen as plain and easy as the multiplication table; yet, as the Table-Talker points out, there is scarcely any improvement to be seen in the art of cooking in general, and none at all outside the domain of "pastries." Even as regards pastries, there are many housewives no doubt who are prepared to maintain that while they have increased in number they have retrograded in quality; and we believe it is Mrs. Stowe who would rank the preparation of a certain New England pudding—noblest of its class—among those "lost arts" over which the wail of Mr. Phillips has been heard throughout the land.

Why this is so is a question which we hesitate in attempting to answer,—it being one of woman's special "wrongs," that she is criticized concerning her method of doing work about which (so she thinks) she alone can know anything from practical experience. But if we may venture, we should say that it is far more generally the fault of the housewives than of the cookery books, for even the feeblest and most foolish of the latter doubtless contain many things which every housewife would do well to study. The most ignorant of cooks will never confess that she has anything to learn about such commonplaces as roast beef, bread, and potatoes; and it is only when visitors are to be tickled with novel desserts, or when John is to be conciliated through his appetite, that the neglected book is brought forth and its pastry receipts curiously conned.

If Mrs. Terhune really succeeds in introducing common sense into the average household, she will certainly place Americans under far greater obligations than she has ever done by even the best of her novels. She has chosen an opportune time for making the experiment, for we are glad to believe that a more wholesome and intelligent interest is now beginning to be felt in culinary matters than has been exhibited for many years before; and though we are not able to say that the book is the best of its class, or even to point out what are its special excellencies, we have no doubt that it merits the cordiality with which it has been received. It has a general aspect of trustworthiness; the *ex-cathedra* remarks concerning Diet, Servants, Children, and kindred topics, are eminently sensible and frank; the author assures us that all the receipts have been actually tested, and we ourselves have the testimony of a certain housewife whose opinion we are bound to respect, that "it is clear, practical, and really helpful in its details as well as in its suggestions."

*Every Saturday.* An Illustrated Weekly Journal. Boston: James R. Osgood & Co.

Rather more than a year ago *Every Saturday* abandoned the field in which it seems to have attained but indifferent success, and joined the ranks of the "illustrated journals." Since that time it has fairly earned for itself a leading place (if not the leading place) among the papers of this class in America. Its illustrations have not only been unprecedentedly numerous, but greatly superior in character to those we had been accustomed to; and the credit belongs to it of having first introduced really artistic wood-engraved portraits to American readers of popular journals. Its literature, too, has been on the whole extremely good; and it is scarcely more than justice to say that *Every Saturday* has elevated the entire standard of our illustrated journalism. It is true that since it joined the "original" weeklies it has fallen more or less into their habit of appropriating pictures and literature without leave or credit; but that is one of the chief differences between them and the confessedly "eclectic" periodicals, and is scarcely a legitimate subject for comparative criticism.

Our purpose, however, in speaking of *Every Saturday* here is not so much to commend it at this late day, as to call attention to an invention which promises to prove not only a great con-

venience to casual readers of magazines, but to add one more to the mechanical marvels of the art of printing. The invention is described as follows in an announcement by the publishers "to the Press :"

"*Every Saturday* for this week (June 3d) comes to its readers with a new claim to favor. Every copy is *trimmed*, neatly pasted so as not to disfigure the paper, and held together as securely as if stitched. Sheets of a larger size are used, so that they may be trimmed and yet leave the page quite as large as before.

"The machine which produces this result is the invention of Messrs. Chambers & Co., of Philadelphia, and was made by them under arrangement with Messrs. James R. Osgood & Co., especially for *Every Saturday*. It is the only machine of this kind in the world, and is really a wonder in its working, accomplishing the various processes of folding, pasting and trimming at one operation. The two sheets of which *Every Saturday* is composed are fed in at opposite ends, are taken up by the machine and carried toward each other, while, by a series of automatic movements, they are folded, trimmed and pasted, *in transitu*; and arriving simultaneously at the centre of the machine, the smaller sheet is placed accurately inside the larger one, and both receive their final fold and are deposited carefully in the box placed for them, a perfect paper. This operation is repeated, when the machine is at its highest speed, thirty times a minute, producing 1800 copies an hour, without mistake or variation."

*The American Annual Cyclopaedia, for 1870.*  
New York: D. Appleton & Co.

Ten times has the annual volume of the American Cyclopaedia made its appearance, and almost as often the ECLECTIC has given it hearty commendation. It is far more comprehensive, accurate, and reliable than any other Annual published in America, and exceptional value is attached to it from the fact that it is prepared in the strictly impartial spirit of pure science. These characteristics have belonged to all the volumes alike, but the present one for 1870 is of unusual interest and significance. Last year was one of the most eventful ones in modern history, and full details are given "of the census, so far as completed; the debates in Congress upon important questions; the details of the internal affairs of the United States; the revenue and expenditures of the Government; the measures taken to reduce the public debt; the modifications of its currency; its fluctuations; the changes in the system of taxation to promote the relief of the people, with its effects upon their industrial interests and prosperity; the banking system, with its expansions and contractions; the fruits of agriculture, and the spread of internal trade and commerce; the proceedings in the Southern States to establish securely their social affairs; the various political conventions of the year, both national and State; the results of elections; the acts of State Legislatures; the surprising extension of the facilities of transportation, especially of railroads, etc. The great events in Europe are also fully presented. The civil, military, commercial, and social condition of each nation, with its population by races, is stated; the irresistible march of the German armies in the

heart of France is described day by day, and illustrated with complete maps. The proceedings of the Vatican Council and its suspension, the occupation of Rome, and the organization of the Italian Government in the city, are set forth in detail. In a word, the present condition and relations of the various nations of Europe, and their transactions during the past year, are fully related."

Besides all this there are carefully prepared records of the Progress of Science, Art, Literature, and Religion; full biographical sketches of the notables who died during the year; and the volume is embellished with portraits of Gen. Robert E. Lee, Gen. Von Moltke, and King Victor Emanuel.

*Papers for Home Reading.* By JOHN HALL, D.D. New York: Dodd & Mead. 1871.

It seems to have become an established precedent now, that when a preacher or a writer has made a reputation and begins to excite popular interest, advantage shall be taken of it for floating again such specimens of his early work as can be dug out of his faded manuscripts, or rescued from the files of his scrap-book. This is not always kind to the public, and it is usually far from kind to the author; and we are not sure that the present volume is one of the exceptions. It is made up of articles which Dr. Hall contributed years ago to a periodical "devoted exclusively to the discussion of moral and religious questions," which he started (and which is still published) in Belfast, Ireland, and these articles are not only local in flavor and somewhat crude in treatment, but they seem to us to lack the sturdy, vigorous, and incisive thought which marks the Doctor's more recent sermons.

For home reading, however, for reading around the fireside when all the family is present, they will, no doubt, prove stimulating, bracing, and instructive; and they can be comprehended by all. They have this advantage too, over a sermon—they are considerably shorter, and are less dogmatic, declamatory, and aggressive.

The contents of the volume are very various, comprising stories, essays, and biblical exposition; and they are published again by the author "under the conviction that for substance they are true and vital to the best interests of men on both sides of the Atlantic."

*Personal.*—The author of that pathetic and tender poem, *Recompense*, which appeared in the ECLECTIC for June, and which was one of the best poems in our last volume, is Mr. Henry L. Abbey, of Rondout, on the Hudson. It gives us the more pleasure to place this honor where it is due, because we had occasion a long while ago to speak somewhat severely of a book of verses which Mr. Abbey was tempted rather too hastily to confide to the public at that time. It is but just to say that *Recompense* is not the only good poem which Mr. Abbey has written since we invited him to abandon versification.

#### BOOKS RECEIVED.

[The Publisher will send any book reviewed in the ECLECTIC, or any other new publication, postage paid, on receipt of the price.]

*Wonders of European Art.* By LOUIS VIARDOT. Illustrated Library of Wonders. New York: Scribner & Co. 16mo, cloth, pp. 335. Price \$1.50.

*The Institutes of Medicine.* By MARTYN PAINE, A.M., M.D., LL.D. Ninth Edition. New York: Harper & Bros. 8vo, sheep, pp. 1151. Price \$5.00.

*Congregationalism. What it is; Whence it is; and How it Works.* By HENRY M. DEXTER. Third Edition. Boston: Noyes, Holmes & Co. 12mo, cloth, pp. 394. Price \$2.00.

*Bench and Bar. The Wit, Humor, Asperities, and Amenities of the Law.* By L. J. BIGELOW. New Edition, greatly enlarged. New York: Harper & Bros. 12mo, cloth, illustrated, pp. 532. Price \$2.00.

*Drawing Book, for Schools and Beginners.* Parts 1, 2, 3, and 4. Designed and drawn by M. H. HOLMES. New York: Harper & Bros.

*The American Cardinal.* A Novel. New York: Dodd & Mead. 12mo, cloth, pp. 315. Price \$1.75.

*American Religion.* By JOHN WEISS. Boston: Roberts Bros. 16mo, cloth, pp. 326. Price \$1.50.

*Nigel Bartram's Ideal.* By FLORENCE WILFORD. New York: D. Appleton & Co. 8vo, paper, pp. 125. Price 50 cents.

*Paralysis and other Affections of the Nerves: their Cure by Vibratory and Special Movements.* By GEO. H. TAYLOR, M.D. New York: S. R. Wells. 16mo, cloth, pp. 149. Price \$1.00.

*Science for the Young. Part II. Light.* By JACOB ABBOTT. New York: Harper & Bros. 16mo, cloth, illustrated, pp. 313. Price \$1.50.

*The Knightly Soldier.* By CHAPLAIN H. CLAY TRUMBULL. Sixth Edition, illustrated. Boston: Noyes, Holmes & Co. 16mo, cloth, pp. 331. Price \$2.00.

#### SCIENCE.

*Periodical Changes in the Physical Condition of Jupiter.*—Mr. A. C. Ranyard notes evidence in favor of Mr. Browning's view that the recent changes in the appearance of Jupiter may be associated with those solar disturbances which have recently been so remarkable. "A similar increase of color and bright egg-shaped markings" in the great equatorial belt "were observed," he remarks, "in the years 1858, 1859, and 1860. Mr. Huggins, Mr. Airy, and Sir W. K. Murray all noticed and figured them, their drawings, in many respects, corresponding with those made in the course of last season." In 1860 the sun showed many spots. In 1859, when the sun was also much spotted, Jupiter was similarly disturbed. Mr. Ranyard also quotes earlier instances. He notices "a most interesting remark of Cassini's," which relates, however, to a well-known peculiarity of Jupiter's spots. Cassini "observed that the bright markings upon Jupiter had a proper motion of their own, and that that motion was greater the nearer the spots were situated to

Jupiter's equator." This has been often noticed since ; but perhaps the most remarkable known instance of this excess of motion near the equator is the case of the dark rift seen across a bright belt for six weeks in succession in the spring of 1860. The equatorial or southern end of this rift travelled away from the northern end at the rate of about 190 miles per hour ! This rapid proper motion of one end of a vast rift in a cloud-belt—to say nothing of the persistence of the rift for at least 100 rotations of the planet (that is, by day and by night for 100 Jovian days)—surely disposes effectually of the theory that the cloud-belts of Jupiter are raised by solar action resembling that to which our own cloud-regions are due. Mr. Ranyard closes his paper with the remark that "if a future more complete examination of the observations of Jupiter should confirm the suspicion that the sun and Jupiter have the same period of maximum disturbance, it would appear to show that the alternations on Jupiter are dependent upon some cosmical change, and not on any effect of tides, as suggested by Dr. Wolf in the case of the sun." Is it altogether so clear, however, that the imagined action of Jupiter in raising solar tides could not synchronize with a solar action raising tides in the deep Jovian atmosphere ? We say this not as advocating the tide theory, but to show that the mere coincidence of solar and Jovian disturbances in point of time does not necessarily prove that the disturbing cause is cosmical as distinguished from some form of action exerted by these two bodies upon each other.

*The Chemistry of Compressed Leather.*—In *Dingler's Journal* for December, Dr. Dingler says that offal of leather, cuttings, and scraps, are first cleansed from dirt and dust, then soaked in water containing 1 per cent. of sulphuric acid, until the material becomes soft and plastic, next compressed into the shape of blocks, dried by steam, and lastly rolled out in mills. In order to soften the mass, 1 lb. of glycerine is added to 100 lbs. of material. The leather thus again obtained is applicable for the inner soles of boots, &c.

*The Spectrum of the Aurora Borealis.*—This has been well investigated by Mr. John Browning, who gives his results in the *Monthly Notices of the Royal Astronomical Society* (November 11). During the display of the Aurora Borealis which occurred on the evenings of October 24 and 25, he confined his attention to observing the spectra of the light, taking it in different parts of the sky. When the spectroscope was directed to the more luminous portions, which were generally of a silvery white, the spectrum appeared to consist of only one line. He could not succeed in verifying the position of this line ; but it appeared to be situated between D and E in the spectrum. When observing the light of the red portions of the sky, a faint red line became visible. He had no means of verifying the position of these lines with any degree of exactitude ; but he was able to throw into the field of view a faint continuous spectrum from a distant light, and also the bright yellow sodium-line produced by a spirit-lamp. The color of the green line was very peculiar ; had he not been able to observe it by comparison, he could not have formed any idea of its position. It was an exceedingly light silvery-green, or greenish-gray,

and often seemed to flicker. Besides the two lines particularly described, he occasionally suspected others, one in the red and one in the blue ; but he could not be at all sure of this. The color of the light of the aurora seen over the greater portion of the heavens resembled exactly that of the discharge of electricity from an induction-coil through a vacuum formed from atmospheric air.

*Duration of Lightning Flashes.*—Mr. O. N. Rood has been carrying out researches on this subject, and the result of his experiments is that the duration of flashes of lightning, as observed by him, and measured by means fully described in this memoir, during a violent thunderstorm in August last, amounts, in round numbers, to about 1-500th of a second, the average length of the streak being 9°.—*American Journal of Science and Art.*

*A New Deodorizing Material.*—In the discussion which followed the reading of a paper, by Prof. Frankland, on the growth of fungi in potable water, before the Chemical Society, on Feb. 2d, Dr. Voelcker alluded to his discovery of the use of pulverized or spongy iron as a deodorizing material of greater potency than animal charcoal. Sewage-water passed through a filter of this substance is completely purified, a much smaller quantity of the substance being required than in the case of animal charcoal ; and this filtered water, after having been kept six months protected from the air, remains perfectly sweet, no trace of fungous growth appearing in it. The spongy iron is obtained by calcining a finely divided iron ore with charcoal.

*Improving Wine by Electricity.*—At Digne, in Germany, several butts of wine were shattered by lightning, and their contents passed along the floor into a cistern beneath. It was found that far from having suffered by the accident, the wine was improved, so as to sell at 60 instead of 10 cents per litre. Subsequent experiments tend to show that a current caused by the immersion of two platina electrodes in connection with a galvanic battery has a similar effect on wine. Even poor wines seem to assume an agreeable flavor through the process.—*Food Journal.*

*The Aéroconiscope.*—The lectures of Dr. Tyndall on dust and on the impurities of water have led to much discussion as to whether the particles of organic nature (as indicated by their destruction when exposed to heat) are the germs of the lower forms of animal and vegetable life, or are merely dried and floating fragments of dead organisms that have been taken up and are in course of transportation by currents of air. To determine this point, we may resort to microscopical analysis, or we may adopt a still more satisfactory method, namely, that of cultivating the germs upon a proper soil, and Dr. Maddox has just read a paper before the Royal Microscopical Society, in which he gives the results of his investigations with an instrument to which he has applied the term Aéroconiscope. This consists of a small chamber open at one side, on the floor of which a small quantity of treacle mingled with acetate of potash and water is spread, and which is placed on a base revolving with the set of the wind, so that the opening is always directed windward. The results obtained have been interesting, for he found that there was

no relation between a prevalence of the germs and the direction of the wind from any one point of the compass more than another. The amount of spores collected varied from 250 on a cultivating surface of  $\frac{1}{2}$  inch to a very few. The prevailing spores were pale, olive-colored, and oval. Some commenced germinating on the second day; others not before the twentieth. No attempt is made to name them, but they appear to be chiefly the spores of fungi. By far the largest proportion of the collections was made during the months of July and August.

*Physiological Effects of Exposure to Increased Atmospheric Pressure.*—Most people are aware that certain disagreeable sensations are experienced by the inmates of a diving-bell, during its descent, even to a few feet below the surface of the water, but the opportunity seldom occurs to note the effects produced by a descent to so great a depth that the pressure amounts to four atmospheres, or no less than 60 lbs. on the square inch. Yet exposure to this pressure has been experienced by the workmen engaged in laying the foundations of the piers of the St. Louis bridge over the Mississippi, and Dr. John Green has published in the *Transactions of the American Otological Society* the results of some observations he has recently made. It was found necessary to use considerable precaution in admitting the workers into the chamber containing the condensed air; an intermediate chamber or lock was therefore constructed, into which the condensed air could be admitted gradually, occupying, for the higher degrees of pressure, from five to ten minutes. The exit was through the same lock, and occupied the same time. The increased oxidizing power of the condensed air was shown by the rapid wasting and guttering of the candles, which burned with streaming smoking flame, and, when blown out, rekindled spontaneously from the glowing wick. During the later stages of the work the men could only work for an hour at a time, and a remarkable form of palsy was prevalent, from which nearly a dozen men died. The first effects of the gradually increasing pressure in the lock, were a distinct sensation of pressure upon the tympanic membranes of both ears, which, however, was immediately relieved by swallowing, or by inflating the ears from within. The respiration and cardiac movements remained unaltered until exertion was made, when they quickly became accelerated. It was found to be impossible to whistle. The ticking of a watch was heard with great distinctness. On leaving the chamber a strong sensation of cold was experienced, and catarrhs were frequent among the men. The condensed air escaped from the tympanum through the Eustachian tube in a series of puffs. Too sudden exposure to the condensed air in one instance caused rupture of the membrana tympani, and too sudden removal of the pressure in the same person spitting of blood.

*Influence of Intense Cold on Steel and Iron.*—The correctness of the popular idea (strongly encouraged by railway companies) that intense cold renders iron and steel more brittle, and may hence occasion the fracture of the tires of wheels during severe frost, which has caused many deplorable railway accidents, has long been doubted by practical physicists. The subject has now been

again investigated; and from some papers read at a recent meeting of the Manchester Literary and Philosophical Society (and published in *Nature*, No. 65, Jan. 26) by Sir W. Fairbairn, Dr. Joule, and Mr. Spence, it would appear to be satisfactorily determined that a low temperature has no effect in rendering iron more brittle. Dr. Joule's experiments were particularly decisive, and consisted of applying weights suspended from the middle of steel needles at different temperatures, and letting the blunt edge of a steel chisel fall on cast-iron nails under similar circumstances. His general conclusion is that frost does not make either iron (cast or wrought) or steel brittle; and that accidents arise from the neglect of the railway companies to submit wheels, axles, and all other parts of their rolling stock, to a practical and sufficient test before using them.

*An Abnormal Potato.*—An abnormal potato—one growing from the centre of another—was some time since presented to the Philadelphia Academy, and was reported on by Mr. T. Meehan. It had been handed to him by the curators; and on dissection, though no exact place of origin could be traced, there seemed nothing to indicate any other theory of origin than that one potato had really grown out of the centre of the other. But there were serious physiological reasons in the way of such a theory. A potato tuber is really but a thickened axis, in which the greater part of the interior structure would be incapable of developing a bud which would produce a tuber such as this one had done. The origin of a new tuber from an old one would be nearer the old one's surface. He had been looking for some further explanatory facts, and believed he had them then, in the potato tubers he handed to the members. They were about the size of hen eggs, and were pierced in every direction by stolons of the common couch grass, *Triticum repens*. They had gone completely through, as if they were so much wire, and in one instance two tubers had become strung together by the same stolon, as if they were two beads on a string. One would suppose that the apex of the stolon, when it came in contact with the hard surface of the tuber, would turn aside and rather follow the softer line of the earth; but there was no appearance of any inclination to depart from their direct course. They had gone apparently straight through. He had no doubt the potato before referred to was a similar case; a potato stolon had penetrated another potato, and instead of going through as these grass spears had done, terminated in the centre, and formed the new potato there. It was worthy of thought whether so much attention had been given to this direct force in plants as the subject deserved. It was well known that a mushroom would lift a paving-stone many times its own weight, rather than turn over and grow sideways, which it would appear so much easier for it to do; and tree roots growing against walls would throw immensely strong ones over, though one would think the pressure against the softer soil would give room for their development, without the necessity of their expending so much force against the wall.

*The Vitality of Yeast.*—Mr. H. J. Slack, in his recent interesting and instructive address to the Royal Microscopical Society, stated that M. Mel-

sens made experiments last year on the vitality of beer-yeast. He found fermentation possible in the midst of melting ice, a temperature at which the yeast would not germinate. The life of the yeast-plant was not destroyed by the most intense cold that could be produced, about 100° C. below zero. In close vessels, when the products of fermentation gave a pressure of about twenty-five atmospheres, the process stopped, and the plant was killed. M. Boussingault, who was present when this communication was made to the French Academy, accepted the statement, on account of the known ability of M. Melsens; but he detailed experiments to show that other ferments had their activity destroyed by exposure to temperatures much less severe, or even by ordinary frost.

*Ape Resemblances to Man.*—Mr. St. George Mivart calls attention, in *Nature* for April 20th, to the strong approach towards the human structure (which he thinks has hitherto not been sufficiently insisted on) displayed by the Hoolock Gibbon, a fine specimen of which is now to be seen in the Gardens of the Zoological Society. It has generally been taken for granted that the palm of resemblance to ourselves can be disputed by the Orang (*Simia*), and by the African genus *Troglodytes* (which includes both the Gorilla and the Chimpanzee) alone. The third member, however, of the Anthropoid apes, the genus *Hylobates* (long-armed apes or Gibbons) appears to present claims of relationship in some respects even superior. Although the enormous length of the arms disguises the resemblance, yet the proportions of the Gibbon's frame (as in some respects long ago pointed out by Professor Huxley) are singularly human. The length of the leg as compared with the trunk, and the form and proportion of the bony thorax, are points which may be mentioned. A Gibbon is, again, the only ape which possesses that striking human feature—a true chin. The slight prominence of the nose is also very remarkable—a point which has not escaped the notice of Mr. Darwin, and which is to be seen in the living specimen referred to. Again, the power, quality, and compass of the voice are qualities justly dwelt upon by Mr. Darwin; and finally, the gentle yet quick and active nature of the Gibbon is eminently noteworthy. A confirmation of the above view is found in the existence, in the miocene deposits of South Europe, of fossil remains of the extinct giant Gibbon—the *Dryopithecus*.

*Geographical Distribution of the Ostrich.*—The ostrich has usually been considered as peculiar to the continent of Africa, where two species have been recognized, one belonging to the northern portions, the other to the regions nearer the Cape of Good Hope. These species were long considered identical, and their distinctness was first suggested by the difference in the texture of the egg. In a recent work by Hartlaub and Finsch on the Birds of Eastern Africa, it is shown that either the ostrich of Northern Africa, or a third species, was known at a very remote period in Central Asia, and perhaps even in India; and that at the present time it occurs wild in Syria, Arabia, and Mesopotamia, where, in fact, it was mentioned by the earliest writers, including Herodotus, Aristotle, and Diodorus.

*Electric Clocks.*—Electric clocks, though very

useful, are liable, when kept in motion by a voltaic battery, to get out of order: the points of contact become foul from the number of sparks constantly passing; and the battery requires to be renewed from time to time. To overcome this difficulty, Sir Charles Wheatstone has improved his magnetic clock, and made it the perfection of a time-keeper, for it works without a battery; moreover it will keep fifty or sixty other clocks going at the same rate in any part of the same house. Sir Charles has also made such improvements in his magnetic bells, by substituting a small magnet for a large one, that their cost is largely reduced, while their efficiency is in no way diminished.

*Heliotype.*—A new process called *heliotype*, by which photographs can be printed independently of light, and in a permanent style, is attracting attention. It may be thus briefly described. The photograph is taken on a sheet of gelatine; this sheet is fastened down upon a plate of metal, and after a little preparation, in which sponge and water play a part, can be printed from as if it were an engraved block. Ordinary printing-ink laid on with a roller is used; and the sheet is printed in an ordinary printing-press, and with a remarkable preservation of the lights and half-tones. Oil-paintings, engravings, chalk-drawings, and anything, living or dead, that can be photographed, may, by this process, be reproduced and multiplied in a permanent form; and when a sufficient number of impressions has been taken, the sheet of gelatine can be lifted from the plate, and laid aside for future use. This is obviously a very important addition to the resources of art; from three hundred to four hundred impressions can be taken in a day, quite independently of weather; and, if required, the picture can be printed along with type in the pages of a book. Specimens were exhibited at a recent conversazione given by the President of the Royal Society at Burlington House, including chalk-drawings by the old Italian masters, landscapes, buildings, engravings, sea-pieces, maps, and a number of shattered and wounded bones from the recent battle-fields in France, intended to illustrate a work on surgery. All these specimens were reproduced with such skill that, in many cases, it would have been difficult to distinguish them from the originals.

*A New Agricultural Machine.*—Deep ploughing is essential for good beet-root as well as for other crops, and Mr. Thomson, of Edinburgh, whose turnpike-road locomotive, with india-rubber tires, we noticed last year, has invented and constructed a machine which will run up and down a field, draw a plough, and do many other kinds of farm-work. It has been fairly tried in heavy land, through which it drew merrily a plough that makes three furrows at once; and whatever be the work it is set to do, the cost is much less than when done with horse and cart. As to its capabilities, we are informed that this active agrarian locomotive will run home a crop from the field, fetch lime and manure and deliver it on any part of the farm, drag out roots of trees, saw timber, and thrash grain.—*Chambers's Journal*.

*Australian Geology.*—The remark has been made more than once, that Australia represents a geological condition which on this side of the globe

prevailed long ago, in the far-remote past. Living animals have there been discovered which on this side of the globe are found in a fossil state only; and another example has recently been sent from Queensland to the British Museum, where it is preserved in the zoological department. This additional example is a fish, described by naturalists as *Ceratodus*, which was captured alive in a Queensland river. It is more than two feet in length, and belongs to the order described as *ganoid*, from the brightness of their scales. A full account of this remarkable fish, by Dr. Günther of the British Museum, will appear in the *Philosophical Transactions*. The fossil specimens found in our hemisphere do not come down beyond the Oolitic formation; there they cease, and a new order takes their place. This discovery suggests once more the question, Has Australia yet to undergo such a grand series of convulsions as have taken place since ganoid fishes lived in the lakes and rivers of the northern hemisphere? In some respects, Australia is an anomalous and unfinished country; and it may be that some day chains of mountains will be heaved up in that vast island, whereby its climate will be ameliorated, and springs and rivers will fertilize its now terrible wastes of desert.

*American Items.*—The gas wells in Ohio continue to discharge gas in considerable quantities. These wells are sunk by boring in the valley of the Kokosing, some of them to a depth of six hundred feet; and the yield of carburetted hydrogen is so great, that at the mouth of a two-inch pipe it produced a flame twenty feet high, "as large round as a hogshead." The quality is described as pure, and the quantity sufficient to light a large city. From some of the wells intermittent jets of salt water are thrown to a hundred feet in height, and others pour out a few gallons of oil. These are noteworthy facts in the history of the oil-bearing strata which have added so largely to the mineral resources of the United States.—The question as to the head-waters of the great river Amazon appears now to be settled by Mr. E. G. Squier, who has travelled widely in Brazil. In a paper read before the American Geographical Society, he states that the Marañon and the Ucayali unite to form the Amazon, and that the length of the Ucayali exceeds that of the Marañon by some hundreds of miles, besides being of greater volume. The Ucayali is navigable a distance of 772 miles, and the Urubamba, which flows into it, a further distance of 216 miles, by small vessels; and this highest point of the navigation is not more than 220 miles from Cuzco, the capital of the most populous province of Peru. Here, then, we have a way opened across the American continent at its broadest part, which ere long may be tried by enterprising tourists; and we may believe that a grand future awaits those vast fertile regions on the lower slopes of the Andes.

*Seasoning Wood.*—A professor at Munich has publishing the results of his experience on the seasoning of wood, which, as a practical question, is worth attention in many quarters. Growing wood, he says, contains in winter about 50 per cent. of water, in March and April 46, and 43 per cent. in the next three months, with but little variation up to November. Timber dried in the air holds from 20 to 25 per cent. of water: never less

than 10 per cent. Wood dried by artificial means until all moisture is expelled, is deprived of its elasticity, and becomes brittle. If the natural qualities of the wood are to be preserved, the drying must begin at a moderate heat, and be carried on very slowly. For the drying of small pieces of wood, such as are used by joiners and cabinet-makers, the professor recommends a bath of dry sand, heated to a temperature not exceeding one hundred degrees. The sand diffuses the heat, and absorbs moisture; but it must be cold when the wood is first buried therein.

*Machine-work vs. Hand-work.*—A paper read at a recent meeting of the Institution of Mechanical Engineers, on Self-acting Machinery for knitting Hosiery, supplies another to the many striking comparisons that have been made between hand-work and machine-work. A skilled knitter, using the ordinary needles, will knit sixty loops or stitches in a minute; a frame-work knitter, with his hand-frame, knits about 5,400 stitches in a minute; but three of the self-acting machines, described in the paper, which can be attended to by one girl, will knit 40,500 stitches in a minute. After this, we need not wonder that Leicester can weave stockings enough to supply the world.

*Optical Phenomena.*—Professor Listing of Göttingen, in an article on certain optical phenomena, explains why birds are so often found dead under telegraph wires. It is not, as is popularly believed, that they were killed by a passing current while perched on the wires, but because, their eyes being in the same horizontal plane, they cannot calculate their distance from the wires, and are consequently killed by flying against them. It is to this same fact—the horizontal plane—that the difficulty of distinguishing the edges of the steps occurs while going down stairs, and of clearly calculating the distance from one to another.

*Tertiary Shells of the Amazon Valley.*—Recent explorations by Prof. J. Orton and Mr. Hauxwell have determined the occurrence, on the borders of the Amazons, at Pabos and Cochaquinas, of Tertiary deposits yielding numerous shells. The species indicate fresh or brackish water conditions, and their perfect preservation indicates a quiet lake or estuary. These deposits are noticed, and the shells, which include two new species, are described by Mr. Henry Woodward in the *Annals and Magazine of Natural History* for January and February. The papers are illustrated by a capital plate of the fossils. Mr. Hauxwell's discovery proves that the estuary of the Amazons was once more than 2,000 miles above its present position.

*Fauna of the Red Sea and Mediterranean.*—The results of a dredging excursion in the Gulf of Suez, undertaken in the spring of 1869, by Mr. MacAndrew, were published last December. Three hundred and fifty-five species, many of them new to science, have been added to the Red Sea fauna. Further researches only tend to confirm the distinction between the Red Sea and Mediterranean species of Mollusca, so that a barrier between the seas must have existed from very remote time. This, however, is quite consistent with Prof. Issel's statement, that an examination of the geological conditions of the isthmus leads to the conclusion that the two seas were united during the Eocene and Miocene periods.

## ART.

*Influence of Art on Character.*—In Mr. Hamilton's "Thoughts about Art," from which we quoted last month, we have about the most serviceable and unaffected volume of art criticism which has been given to the public for a long time. It grows upon one with reperusal and study, and we make no apology for again quoting from its pages—this time on the "Influence of Art on Character," and the "Difficulty of Landscape Painting." Of the former, he says:—

It remains only to consider whether, in a national sense, it is wise to assist in the spread of the artistic spirit. The general opinion has concluded that it is. Our schools of design, our Art exhibitions, the great quantity of our printed Art criticism, all urge the country towards an Art epoch which promises ultimately to be brilliant, for we have both the wealth and the talent necessary for such a time. But it may be doubted whether the national mind has turned to art from the pure love for it. We discovered that for want of artistic counsel and help, we were spending our money badly every time we tried either to build a public building or weave a carpet, or color a ribbon. We found out that the French managed these things better, and with less outlay got handsomer results, and it appeared that this superiority was due to their artistic education. So we said, let us study Raphael that we may sell ribbons. This was not a very promising temper to start with; we were laughed at for our awkwardness, and we did not like to be laughed at, so we resolved to silence derision by the acquisition of art skill. Nevertheless, in spite of the commercial spirit of this beginning, we are generally tending Art-wards, and the problem before us is whether this artistic infusion will not injuriously affect the traditional character of Englishmen. It will modify it very considerably; rely upon that. There is a difference between minds which are artistic and minds which are not, so strong and decided that nobody can question the influence of Art upon character. Not that Art always influences in the same way; various itself, it produces varied effects. But it always alters our habitual estimates of things and men; it alters our views of valuable things. A child in a library values those books most which have gilt edges; a book collector prizes the rarest editions; but a lover of reading for its own sake neither cares for gilt edges nor rare editions, only for the excellence of the matter and the accuracy of the text. So is our value for men and nature affected by the artistic spirit. To it, vulgar show is the gilt-edged book; the extraordinary is the rare edition; what it values is often very humble and poor to eyes that cannot read it. It can see majesty and dignity in many a poor laborer; it can detect meanness under the mantle of an emperor; it can recognize grandeur in a narrow house, and pettiness in the palace of a thousand chambers."

*Cleopatra Before Cesar.*—In the present exhibition at the Royal Academy Mr. Gérôme has a couple of paintings, one of which—Cleopatra brought before Cesar in a Carpet—is thus described in the *Athenaeum*:—

"No picture in the gallery is likely to attain so much attention as M. Gérôme's celebrated *Cleo-*

*pâtre apporté à César dans un Tapis.* According to the well-known story, Cleopatra, in order to escape the watchfulness of her enemies, is said to have caused Apollodorus to wrap her in a carpet, or, more probably, a piece of tapestry, and, thus concealed, to bear her to the room where Cesar sat. The scene chosen for this studied picture is Cesar's council-chamber, a large and lofty vaulted room, where he sat with his secretaries. Apollodorus has just set down his burden, the tall, dark-haired, serpent-like woman, and, stooping at her knees, removes the tapestry, which, while it reveals the queen, almost naked and gorgeously decorated, has fallen in heavy masses at her feet. Upright she stands, with one hand on the shoulder of the man, leaning her head sideways, and bending the dark fire of her eyes on the Dictator, who does not appear so much startled as one would expect: he raises his face from the paper on which he was engaged, and lifts his hands with moderate surprise, or in the act of commanding his secretaries. M. Gérôme has expended the resources of his art on the figure of Cleopatra, and succeeded in producing that which thoroughly characterizes himself in design; the subtlest passion, and that ineffable look of craft, concentrated in luxury, which she exhibits, are elements of a masterpiece, surpassing in exquisiteness even the figure of Phryne, in his equally famous picture. Her hair is black as night, bound with a gold fillet, and jewelled with the sacred *ureus* of Egypt; she is naked to the hips, except where a carcanet of green-blue, turquoise and black ornaments, in the Nilotic mode, and like a gorget for breadth—falls about her throat; a broad belt of gold, with straps passing below her breasts, binds her waist; from her hips a gold-embroidered white tissue, divided to show the lower limbs entire, falls to her feet, without pretending to be a covering. Keen criticism might allege defects in the drawing of this figure—condemn that of Apollodorus as quite unsuitable, and a crude sacrifice to the advantage of obtaining a violent contrast for the queen. Critics might declare the figure of Cesar not happy, and those of the secretaries in every way unsatisfactory. Yet one needs but to look at the figure of Cleopatra to be assured how great is the merit of its execution—how delicate and subtle was the feeling which dictated its design—how much skill has been employed in modelling its forms. Moreover, it comprises beautiful color with its decorations: these, with the pallid, yet fervid-looking flesh of the woman, the languor of the not exhausted sensuousness her contours display, are elements of Art of a very high kind."

*The Mausoleum of Halikarnassos.*—The *Fortnightly Review* for April contains a contribution by Mr. Sidney Colvin to the already copious literature of the Mausoleum of Halikarnassos, taking occasion partly from the final arrangement of the remains of that monument in the British Museum, partly from the completion of the Albert Memorial in Hyde Park. The aim of the writer has been to treat the subject from the point of view of general culture rather than from that of rigid antiquarianism. At the same time he attempts a detailed historical and aesthetical estimate of the place which these remains hold in Greek art, with peculiar reference to the relations subsisting between the Mausoleum frieze and the friezes from

Phigaleia and from the temple of Athene Nike, and with notice of the most recent criticisms of German writers. It may be pointed out that with regard to the well-known and exquisite fragment in relief styled unanimously hitherto a female chariooteer, the writer passes over the sex of the figure with the ambiguous word "youthful." In point of fact this figure is certainly male. The beauty of the face and fashion of the hair, together with the flowing drapery, made upon its discoverers as well as upon subsequent students the impression of a type at first sight decisively feminine. The evidence by which a closer examination reverses this impression is as follows: The throat has the masculine characteristic of the "Adam's Apple" strongly marked; the breast is not so much concealed by the stumps of the outstretched arms but that its masculine character must be confessed; the arms preserved upon similar fragments of the same frieze, who are less defaced in this respect, though more in others, are men's and not women's arms; the hair is blown back by the wind in a way to heighten the feminine effect of its dressing, which for the rest is the same as in some extant male sculptures; and lastly, the talaric chiton, clinging to the figure in the shape of an elongated S-curve and flowing full about the heels, is no index of sex, but a costume almost universally characteristic of drivers in chariot-races; a good example for comparison being the bearded youth of the pseudo-archaic amphora from the Cyrenaica (C. 116 in the British Museum Catalogue). These considerations have persuaded Mr. Newton, the distinguished discoverer of the slab, that his own and the received account of it must henceforward be altered in this particular.

*Japanese Shrines.*—The shrines (Japanese) are of exceeding beauty, lying on one side of a splendid avenue of Scotch firs, which border a broad, well-kept gravel walk. Passing through a small gateway of rare design, we come into a large stone courtyard, lined with a long array of colossal stone lanterns, the gift of the vassals of the departed Prince. A second gateway, supported by gilt pillars carved all around with figures of dragons, leads into another court, in which are a bell tower, a great cistern cut out of a single block of stone like a sarcophagus, and a smaller number of lanterns of bronze. These are given by the Go San Ke, the three princely families in which the succession to the office of Shogun was vested. Inside this is a third court, partly covered like a cloister, the approach to which is a doorway of even greater beauty and richness than the last; the ceiling is gilt, and painted with arabesques and with heavenly angels playing on musical instruments, and the panels of the walls are sculptured in high relief with admirable representations of birds and flowers, life-size, life-like, all being colored to imitate nature. Inside this enclosure stands a shrine, before the closed door of which a priest on one side, and a retainer of the house of Tokugawa on the other, sit mounting guard, mute and immovable as though they themselves were part of the carved ornaments. Passing on one side of the shrine, we come to another court, plainer than the last; and at the back of the little temple inside it is a flight of stone steps, at the top of which, protected by a bronze door, stands a single monumental urn of

bronze on a stone pedestal. Under this is the grave itself; and it has always struck me that there is no small amount of poetical feeling in this simple ending to so much magnificence; the sermon may have been preached by design, or it may have been by accident, but the lesson is there.—*Tales of Old Japan.*

*Landscape Painting.*—The extreme refinement of form in natural landscape is a point so little understood by the public, and by the painters of portrait and *genre* who exercise authority in the artistic profession, that I hardly like to mention it here at all. The impression amongst figure painters that landscape is easy to draw, and the readiness with which, on the authority of figure painters, the world has accepted the doctrine, make it painfully evident that all these good people have never really looked at natural landscape at all nor attempted seriously to copy it. Now landscape is not merely difficult to draw, but it is *infinitely* difficult; that is to say, that the best designer of the figure now alive upon the earth, whoever that may be, if he really set himself in earnest to draw a mountain *as it is*, would find, after any quantity of labor and care, that he had only been able to draw it in a manner which is to be called good out of indulgence for the weakness of human faculties, and in a certain restricted sense, and that the natural mountain still remained at quite an infinite and unapproachable distance beyond him. As for the slight sketches of mountains which figure painters are accustomed to put behind their personages by way of background, they bear precisely the same relation to real mountain painting that the figures we landscape painters sketch in our compositions do to real figure painting.—*Hamerton.*

*Death of a Munich Painter.*—One of the veterans of the Munich School of Art, the painter of battles, Peter von Hess, died at Munich on the 4th of April. He was born in 1792, at Düsseldorf, where his father, R. P. C. Hess, the engraver, was professor. He went through the campaigns of 1813-15, as a soldier under Wrede, and thus became familiar with the details of military life and action which give their chief interest to his martial compositions; but he seldom painted pictures without studying their scenes from nature. In the suite of Otho, king of Greece, he visited the ground on which battles were fought for Greek independence. In 1839 he visited Russia, preparatory to composing his canvases illustrating the war of 1812. Hess's best-known pieces are the "Battle of Leipzig" and the "Entry of King Otho into Athens." Others are in the Palace and Pinakothek of Munich. Some of his sketchy frescos may be seen in the arcades of the Hofgarten at Munich.

The German papers report the destruction, by the operations of war, of some valuable paintings formerly belonging to the distinguished artist Bouterwek. Madame Bouterwek had been resident since her husband's death at a small property in Bougival, which was ruined during the siege, while its owner was engaged in hospital work within the city. Among the losses are two Titians, two Murillos, two Paul Potters, and a Hobbema, destined after Madame Bouterwek's death to have been bequeathed to the museum of Berlin.

## VARIETIES.

*The Introduction of Coffee.*—Coffee-drinking, though a much more modern custom than tea-drinking, began in England a little earlier. It was first practised in Arabia about the middle of the fifteenth century, when the story goes that the chief of a company of dervishes noticed that his goats frisked and played all night long whenever in the previous day they had eaten of a shrub growing wild in the neighborhood. Finding it difficult to keep his disciples awake during their evening devotions, he prepared a beverage of the leaves or berries of the shrub, and it proved so helpful to the midnight piety of the dervishes that from that time coffee came into use. The coffee-plant being abundant and easily cultivated, the new beverage soon became a favorite all over Arabia. Great opposition was offered to it by many good Moslems, who urged that it was an intoxicating drink quite as bad as the wine forbidden in the Koran, and numerous raids were made upon the coffee-houses; but the very fact of its serving as, in some sort, a substitute for the juice of the vine tended to make it popular. It reached Constantinople about 1554, and was of universal use in all Mahomedan countries before close of the sixteenth century. So essential was it deemed to domestic happiness that a Turkish law recognized a man's refusal to supply his wife with coffee as sufficient ground for her claiming a divorce. About the year 1600 it began to be talked of in Christendom as a rare and precious medicine. In 1615 it was brought to Venice, and in 1621 Burton spoke of it in his "Anatomy of Melancholy" as a valuable article which he had heard of but not seen. In 1652, Sir Nicholas Crispe, a Levant merchant, opened in London the first coffee-house in England, the beverage being prepared by a Greek girl brought over for the work. Other coffee-houses in abundance were soon opened. In William III.'s and Queen Anne's days they were the great places of resort for wits, beaux, fops, gallants, wise men, and fools, and as such are amply described in the *Spectator* and other works of the time. And coffee was not merely an excuse for social intercourse: its first drinkers in England knew how to drink it. Pope says:—

"For, lo! the board with cups and spoons is crowned,  
The berries crackle and the mill goes round :  
On shining altars of Japan they raise  
The silver lamp : the fiery spirits blaze ;  
From silver spouts the grateful liquors glide,  
While China's earth receives the smoking tide.  
At once they gratify their scent and taste,  
And frequent cups prolong the rich repast."

The growing demand for coffee, of which more than 30,000,000 lbs. are now annually consumed in Great Britain, caused the plant to be cultivated in other districts as well as Arabia, where it is indigenous and thrives best. At a very early date the Dutch began to grow it in Java and their other East India possessions, and they were unintentionally the causes of its introduction to the New World. In 1600 some seeds were brought from Mocha to the Botanic Garden at Amsterdam, and from the produce of these seeds a single plant was, in 1714, sent as a present to Louis XIV., and by him treasured up in Paris. In 1717 a Frenchman named Décloux obtained a plant raised from one of its seeds and carried it to Martinique. The

ship was weather-bound, and before the Atlantic was crossed the crew were in grievous trouble for want of water. There was water on board, but the captain, anxious above all things to preserve his treasure, doled it out in meagre quantities to the men, while he nourished the coffee-plant without stint. And the plant made a good return for the care bestowed upon it. From its seeds, we are told, have descended all the coffee trees now abounding in the West Indies and Brazil.

*The Darwinian Theory.*—The first part of the *Zeitschrift für Ethnologie* for the present year contains a remarkable tribute to the influence on the development of scientific thought of Mr. Darwin's writings, in a list of works published since 1858 on the Darwinian Theory. The list is compiled by Dr. J. W. Spengel, fills twelve pages, and is divided into six heads: 1. German translations of Darwin's works. 2. Original works in German on the Darwinian Theory. 3. Works containing incidental references to the Theory. 4. Articles on Darwinism and the Origin of Man, scattered in magazines, etc. 5. Works on the question of the Origin of Man. 6. Most important works on Darwinism in English, French, Dutch and Italian. Dr. Moriz Wagner continues in *Ausland* for March 31 and April 8, his new contributions to the Darwinian Theory. In these portions of his interesting paper, he brings forward numerous instances of the manner in which recent geological discoveries have supplied missing links in the connected chain of organic forms. Under this head he refers especially to the *Dinotherium*, which unites the Pachydermata to the Cetacea, which latter group appeared heretofore to be isolated from all other orders of Mammals; to the connecting links existing in tertiary fossils between the Pachydermata and the Ruminantia, and especially to the *Pterodactyl* and the *Archaeopteryx*, which he considers to stand between birds and reptiles, the former presenting the character of three parts reptile and one part bird, and the latter three parts bird and one part reptile. Finally Dr. Wagner enters in considerable detail into the discoveries of Finlay, Lindermayer, and others, in the miocene deposits at the foot of Pentelicon and other localities in Greece and the Pyrenees, which produced the *Hipparrison*, an ancestor of our existing genus *Equus*, and the anthropomorphic apes *Mesopithecus pentelicus* and *Dryopithecus Fontani*. In the same magazine for April 24, Dr. Hugo Eisig refers to the great extent to which Darwin's theory of Evolution had been anticipated by Lamarck in his *Philosophie Zoologique*, published as long since as 1809.

*Opium-Smoking in England.*—In intervals between her (Eliza, the original of the woman opium-smoker in "Edwin Drood,") talk she scoops out prepared opium from a little gallipot, sticks it on the needle that crosses the broad shallow bowl of her ruler-like pipe, turns the bowl to the orifice in the glass cover of her lamp, humors the pill with the spatula end of another needle to get it to kindle, and then takes a long pull—sometimes sending back the smoke through her nostrils and her ears. "It's very healthy, gentlemen," when we remark upon its not unpleasant odor. "When the cholera was about, nobody took it that lived in a house where they smoked opium." There used to be half a dozen and more of these houses in the

East-end, but the two in Bluegate Fields are the only ones now known to the police. The Strangers' Home officials exerted themselves a good deal to put the others down; but lodgers in the Strangers' Home are still, during the day, pretty frequent customers at the two houses in Victoria court. "Craving for drink, gentlemen!" Eliza presently exclaims; "wanting to have a smoke, and not be able to get opium, is a hundred times worse than that. I used to drink about as free as any, didn't I, sir?" appealing, almost proudly, to our dragoman for corroboration of her statement. "But I've broke myself of that; but if you can't get a pipe when you want it, it's like as if you was having electric shocks one after another, or as if you was having a knife scraped along your bare bones." A drachm of opium is the largest amount which Eliza owns to having smoked in a day.—*Night Rambles in the East-end.*

*Dethroned Sovereigns.*—The *Indépendance Belge* gives the following list of sovereigns still living who have been deprived of their thrones:—Prince Gustave Vasa of Sweden, 1809; Count de Chambord, 12th August, 1830; Duke Charles of Brunswick, 17th September, 1830; Count de Paris, 24th February, 1848; Duke Robert de Parme, 1859; Grand Duke Ferdinand of Tuscany, 1860; Duke Francis of Modena, 1860; King François II. of Naples, 13th February, 1861; the widow of King Otho of Greece, 24th October, 1862; Duke Adolf of Nassau, 1866; King George of Hanover, 1866; the Elector of Hesse, 1866; Empress Charlotte of Mexico, 1867; Isabella of Spain, 1869; Emperor Napoleon, 1870.

*Sydney Smith and "The Edinburgh Review."*—“Towards the end of my residence in Edinburgh, Brougham, Jeffrey, and myself” (Sydney Smith), “happened to meet in an eighth or ninth story or flat in Buccleuch Place, the then elevated residence of Mr. Jeffrey. I proposed that we should set up a review; this was acceded to with acclamation. I was appointed editor; and remained long enough in Edinburgh to edit the first number. The motto I proposed was, ‘*Tenui musam meditamus arena*,’—We cultivate literature on a little oatmeal. This was too near the truth to be admitted, and so we took our grave motto from Publius Syrus, of whom none of us had ever read a line. When I left Edinburgh, the *Review* fell into the stronger hands of Jeffrey and Brougham, and reached the highest point of popularity and success.” Now nothing can be more imaginary than nearly the whole of the above account. In the first place, there never was a house eight or nine stories high in Buccleuch Place, or in any of that portion of the new town of Edinburgh. No house at that time exceeded three stories. In the second place, Smith never was appointed editor. He read over the articles, and so far may be said to have edited the first number; but regularly constituted editor he never was,—for, with all his other rare and remarkable qualities, there was not a man among us less fitted for such a position. He was a very moderate classic; he had not the smallest knowledge of mathematics or of any science. He could no more have edited,—that is, sat in judgment upon Playfair’s article on “Mascheroni’s Geometry,” No. 17, p. 161; or on Delambert’s paper on the “Arc of the Meridian,”

No. 18, p. 373; or on Bentley’s “Hindu Astronomy,” No. 20, p. 455, than he could have written the “Principia.” He was an admirable joker; he had the art of placing ordinary things in an infinitely ludicrous point of view. I have seen him at dinner at Foston (his living near York) drive the servants from the room with the tears running down their faces, in peals of inextinguishable laughter; but he was too much of a jack-pudding. On one occasion he was the high-sheriff’s chaplain, and had to preach the assize sermon. I remember the bar, who were present in York Minster, being rather startled at hearing him give out as his text, “And a certain lawyer stood up and tempted him!” But I am bound to say the sermon was excellent, and much to the purpose. Whatever faults he may have had, he had too much good sense to be ashamed of his name; he used jokingly to say, “The Smiths have no right to crests or coat-armour, for they always sealed their letters with their thumbs!”—*The Life and Times of Henry Lord Brougham, written by himself.*

#### RESIGNATION.

To me here sitting by the fire alone,  
Musing upon my lonely latter years,  
And the great griefs that I therein have known,  
Sad thoughts come with the mastery of tears;  
And more than ever now my life seems one  
Scarce worth the living; and my tearful Past  
To a more tearful Future hands me on,  
Henceforth with her to wander to the last.  
Yet, though the worst come, and resplendent Hope  
Wholly withdraw her gleaming orb so fair,  
Already, like the moon in yonder cope,  
Waned to a crescent—I will not despair.  
Despair I will not, whatsoe’er befall,  
But own God’s providence, and bear with all.

*Coleridge’s Prejudices.*—He was a man of violent prejudices, and had conceived an insuperable aversion for the *grande nation*, of which he was not slow to boast. “I hate,” he would say, “the hollowness of French principles: I hate the republicanism of French politics: I hate the hostility of the French people to revealed religion: I hate the artificiality of French cooking: I hate the acidity of French wines: I hate the flimsiness of the French language: my very organs of speech are so anti-Gallican that they refuse to pronounce intelligibly their insipid tongue.” He would inveigh with equal acrimony against the unreality and immorality of the French character, of both sexes, especially of the women; and, in justification, I suppose, of his unmeasured invective, he told me that he was one day sitting tête-à-tête with Madame de Staél, in London, when her man-servant entered the room and asked her if she would receive Lady Davey. She raised her eyebrows and shrugged her shoulders, and appeared to shudder with nausea, as she turned to him and said, “Ah! ma foi! oh! mon cher ami! ayez pitié de moi! Mais quoi faire? Cette vilaine femme. Comme je la deteste! Elle est, vraiment, insupportable!” And then, on her entry, flung her arms around her, kissed her on both cheeks, pressed her to her bosom, and told her that she was more than enchanted to behold her.—*A Memoir of Charles Mayne Young, Tragedian.*





Engraved for the *Electric* by O. Peleg.

HARRIET C. HOSMER.

